

Statistics for Psychology
201-02/03

INSTRUCTOR: Dr. Karla Lassonde

OFFICE: 103 I Armstrong Hall

EMAIL: karla.lassonde@mnsu.edu

OFFICE PHONE: 389-5827

TIME: T/TH: 9:00-10:45

LOCATION: Memorial Library-
109 (basement level)

OFFICE HOURS: M: 1-4, T: 11-
12, W: 10-1, Th: 11-12 & by
appointment; see MavConnect

Important Notes:

****Please schedule Office Hour Appointments through MavConnect a student success platform used here at MSU, Mankato. Please connect using your credentials here: <https://mnsu.starfishsolutions.com/starfish-ops/support/login.html>**

Training is available for MavConnect here: <http://www.mnsu.edu/mavconnect/students.html>

Course Undergraduate Teaching Assistant: Erik Jacobson erik.jacobson@mnsu.edu

Prerequisite: Math 112 or Stat 154 or higher math course (no exceptions)

*Should not concurrently be taking Psychology 211 Research Methods

COURSE DESCRIPTION & OBJECTIVES

Why are you in this class?

This class is for students who want to understand statistics for the behavioral sciences from the perspective of psychology. Many students in the behavioral sciences have, for various reasons, built up an aversion to math. This course WILL NOT intensify your fear of math! The math needed to be successful in this course does not go beyond basic algebra, but you will need to have the required background (Math 112 or Stat 154 completed successfully) to ensure you have those skills. Nevertheless, statistics is not mainly about math; statistics allow you to interpret and best understand the world we live in.

In this class you will develop the basic statistical skills necessary to analyze simple data sets. You will learn how to make inferences about what is happening in a population of individuals based on information from a smaller sample of individuals. Emphasis will also be placed on the application of these skills, as you will be asked to analyze specific statistical problems over the course of the semester. This class is particularly important for those of you hoping to conduct research in the behavioral sciences and is a required course for Psychology Majors.

Course Goals:

- 1.) **Learn** the importance of statistics for understanding psychological science.
- 2.) **Apply** basic statistical concepts to questions about psychological science.
- 3.) **Conduct** and interpret basic statistical tests and make inferences about psychological science.
- 4.) **Prepare** students in the Psychology Major to apply knowledge to the study of research methods.

TEXT & MATERIALS

1.) Textbook

- **Text:** *Statistics for Social Sciences* is a custom-built interactive textbook online through Top Hat. Although the textbook is online, you can choose to print out any pages.
- **Top Hat Learning System:** We will be using the Top Hat (www.tophat.com) interactive learning system. Here you will access course materials, complete assignments and participate in class. You will be able to access Top Hat using your smart phones or computers AND our classroom laptops.

2.) How to GET STARTED with TOP HAT; see

(<https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide>) click on “Student-Getting Started with Top Hat” which outlines how you will register for a Top Hat account, as well as provides a brief overview of the system. You can also come back to this site and type in any questions you have.

3.) First you must REGISTER for the course by creating an account in Top Hat:

- a. Opening an email sent to your @mnsu.edu email describing how to sign up using our course join code: **985180**
- b. You may also visit www.tophat.com and enter our course join code: **985180** after clicking “sign-up.”

4.) Second, you will have to PURCHASE a Top Hat subscription. After registering and joining the course, you will be brought to a purchase screen. You will use the purchase section to either pay for the products directly OR you may have already paid for subscription codes from the bookstore. If so, you will have received 2 subscription codes:

- a. 1 code will be for the Text: "Statistics for Social Science: A Top Hat Interactive Text" - ISBN: 978-0-9948021-5-6 - Price/unit: ~\$45
- b. 1 code will be for the interactive program "Top Hat Classroom 1-Semester" - ISBN: 978-0-9866151-0-8 - Price: ~\$26

Regardless of how you are purchasing your materials (directly through Top Hat or you have subscription codes from your bookstore), you must complete the process using a web browser on a computer.

*If you have created an account, you may come back in and pay later; however, you risk missing assignments and course information. though the textbook is online, you can choose to print out any pages.

5.) Should you require assistance with the software Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their

Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

- 6.) **Calculators:** You will need a calculator that performs mathematical functions, but nothing fancy. You should always bring your calculator to class. Your phone CANNOT be used as your calculator.
- 7.) **Desire 2 Learn:** D2L will be used for administrative purposes (e.g., announcements), for posting course material outside of Top Hat and grading. Course materials will be available on D2L and Top Hat, but these materials do not include EVERYTHING done in class and are not a substitute for coming to class.

COURSE REQUIREMENTS

1. Assignments (40% of your grade): Doing well in statistics requires work. We will complete several assignments that assist in your learning that fall into the following two categories: (Top Hat Computer-based assignments and those you bring to class)

Top Hat, Computer Assignments (20% of Assignments) These are not your traditional math assignments and will encourage you to apply what you are learning in unique ways. You will be able to see these and respond to the activity/questions using Top Hat. Note, these assignments are considered “Homework” in the system and will show up with a red dot next to them. Here are the basic types of assignments you will encounter:

- *Chapter Readings (10 points each, 5% of overall assignments)* – yes, you’ll get credit for reading the online text. This will lead to better preparation AND there are ungraded questions posted throughout the reading to ensure you are learning concepts.
- *Lecture Assignments (5 points each, 5% of overall assignments)* – during lecture I will assign short questions or activities for you to complete. These are always due **online** by the **next class at 9:00 am**.
- *End of Chapter Questions (Points determined by number of questions, 10% of overall assignments)* – after we have discussed the chapter in class, you will complete these chapter reviews. Many of these questions will appear on your Exams. You will receive feedback and can correct your answer and complete these assignments multiple times to practice if you wish.

****I will drop 1 of each of these types of assignments so you can either miss one or have your lowest score dropped. There are no make-ups!***

Assignments you complete outside of class and hand-in during class (20% of Assignments):

- *Written work (10 % of overall assignments)* is assigned and due in class. What separates these from Top Hat work is that you are required to bring your completed assignments to class.
- *SPSS -- (Statistical Package for the Social Sciences) (10% of overall assignments)* This computer program will connect what you are learning with how researchers analyze and interpret statistics. In addition, you will use this a lot in Psychology 211: Research

Methods which, for majors, is taken after this course is successfully completed. More information about using SPSS and completing these assignments will follow.

* For these types of assignments, you will be docked 10% of the possible points for that assignment for each class day an assignment is LATE (up to two class days following the class the assignment was due).

It may be tricky to at first to track deadlines and types of assignments. You will be successful though if you do two things: 1.) Come to class 2.) Use and check our Top Hat site multiple times a week. There is no other way to succeed in this class.

2. Attendance (10% of your grade): I will take attendance using Top Hat during each class. You will earn two points for each class you attend. This is not meant to make your life difficult. Course grades in statistics directly relate to attendance; the more you are here the better you will do.

*Note, you will lose daily attendance points if you are not here when attendance is taken. These points cannot be made up. If I suspect you are using devices for non-class related things I may talk to you personally and may not count your participation points for the day.

**I will not count two classes (thus you can miss up to two classes without losing these points)*

3. Exams (50% of your grade): There will be four exams during the course of the semester (including the final) which will be non-cumulative. All exams will be open notes and you can use your calculators. All other devices (phones and Laptops) will need to be put away during exams. You will see a variety of questions on exams. Many of the questions used in Top Hat *End of Chapter Questions* will appear again on exams to reinforce learning topics. Several of the questions will require you to do hand calculations. ****Final Exam is scheduled for Monday December 10th, 8:00-10:00 am****

4. Extra Credit:

1.) Participation in Research: You may earn up to **16** extra credit points toward your exam point total by participating psychology research. A few weeks into the school year, you will receive an email with your user ID and password. If you forget your password or username, there is a link on the bottom of the screen you can click to have it emailed to you. Please check the site often, as new research opportunities will appear throughout the semester. Do NOT wait until the last few weeks of the semester to participate, as experiments tend to fill up quickly at the end of the semester. You are responsible for signing up for research and showing up on time for appointments, or letting the researchers know if you need to cancel—if you miss more than 4 appointments, you will no longer be eligible to participate in research studies for the current semester. You will earn 1 point of SONA credit for each 15 minutes of online research you complete, and 2 points of SONA credit for each 15 minutes of in-person research you complete. Opportunities for participation are posted at <http://mnsu.sona-systems.com/>

2.) There may a few additional options to obtain extra credit. Stay tuned during the class.

LEARNING ASSESSMENTS

Grades will be determined by combining these components

- 1.) **Assignments**.....**40%**
- 2.) **Attendance**.....**10%**
- 3.) **Exams**.....**50%**

Grades: It is your responsibility to keep up with your grades. If you have a question or you think something is wrong/missing, please contact me immediately, don't wait until the end of the semester.

Grading Scale:

Percentage Points	
93-100 = A	76-73 = C
92-90 = A-	72-70 = C-
89-87 = B+	69-67 = D+
86-83 = B	66-63 = D
82-80 = B-	62-60 = D-
79-77 = C +	59 & Below = F

1.) Participation:

Participation by asking questions and being engaged in class will improve your learning experience. If you miss a class it is your responsibility to get the notes and or work, handouts, or assignments. Check your resources (Top Hat Course site and D2L first).

**Please do not email and ask "what did I miss?" You will always miss something.*

2.) Electronics: You will be using your devices and//or computers to respond to questions during class but it is your responsibility to manage what else you chose to do with these devices. You have a lot of liberty, so you will have to be on task.

3.) Arrivals: Please arrive on time! Coming in late, finding a seat, getting your notes out, etc. can be quite disruptive.

4.) Departures: I expect you to remain here for the entire class. If you have to leave early please speak to me before class.

5.) Email: Please put **PSYC: 201** in the subject of your email. I welcome questions/comments from you; however, please do not email me late in the evening and expect I will be able to reply to you then. I will do my best to respond to your email within 24 hours. Consult your syllabus and D2L for information before you email me. Chances are you can find what you need there. **DO NOT EMAIL ABOUT GRADES.** Grades will only be discussed by scheduling an office hour appointment.

6.) Make-up Exams: There will be no makeup exams. It is your responsibility to come to class and find out when the exams will be held. If you know for some reason that you will not be able to take an exam on a given date, you must see me **BEFORE** the exam to make necessary arrangements to take the exam in advance.

7.) Accessibility Resources: Every effort will be made to accommodate qualified students with disabilities. If you are a student with a documented disability and you will require special accommodations in this course, please contact the Accessibility Resource Office at <http://www.mnsu.edu/access> (507) 389-2825 or 1-800-627-3529 for assistance in developing a plan to address your academic needs.

8.) Other Academic Support Agencies: There are a number of organizations on campus that can help you with academic and non-academic related needs. If you have a problem that you would like to discuss at any point in the course, please come and talk to me and I can point you in the direction of a suitable resource.

9.) Academic Honesty: I expect that you will conduct yourselves with honesty and academic integrity while in this class. MSU, Mankato students are obligated to adhere to the [Statement of Student Responsibilities](#). Students caught cheating will fail that specific assignment and may be turned over to student affairs for formal discipline.

Course Content Outline: *Note: I reserve the right to modify the syllabus based on the progress of the class and unforeseen circumstances.*

DATE		TOPIC	Reading
Tuesday	8/28	Introduction to Statistics	Chapter 1
Thursday	8/30	Statistics vs. Parameters	Chapter 1
Tuesday	9/4	Variables & Research Design	Chapter 1
Thursday	9/6	Measurement & Design Wrap-up	Chapter 1
Tuesday	9/11	Frequency & Charts/Graphs	Chapter 2
Thursday	9/13	Central Tendency & Variability	Chapter 2
Tuesday	9/18	SPSS Introduction & Central Tendency & Variability Continued	Chapter 2
Thursday	9/20	Exam #1 Review	
Tuesday	9/25	Exam #1	
Thursday	9/27	Normal Distribution/Curve	Chapter 3
Tuesday	10/2	Introduction to Z-scores	Chapter 3
Thursday	10/4	Basics of Probability & Z-scores	Chapter 4 & 5
Tuesday	10/9	Basics of Probability & Z-scores	Chapter 4 & 5
Thursday	10/11	Introduction to Hypothesis Testing	Chapter 6
Tuesday	10/16	Hypothesis Testing	Chapter 6
Thursday	10/18	Exam #2 Review	
Tuesday	10/23	Exam #2	
Thursday	10/25	Learning Distributions & Z-Test	Chapter 7
Tuesday	10/30	Learning Distributions & Z-Test	Chapter 7
Thursday	11/1	Single-Sample Hypothesis	Chapter 8
Tuesday	11/6	Single-Sample Hypothesis & Confidence Interval Continued/ Exam 3 Review	Chapter 8 & 9
Thursday	11/8		Chapter 9
Tuesday	11/13	Exam #3	
Thursday	11/5	Two-Sample Hypothesis Testing	Chapter 10
Tuesday	11/20	Two-Sample Hypothesis Testing	Chapter 10
Thursday	11/22	THANKSGIVING	
Tuesday	11/27	ANOVA and F Distribution	Chapter 11
Thursday	11/29	ANOVA and F Distribution	Chapter 11
Tuesday	12/4	Correlation & Regression	Chapter 12
Thursday	12/6	Correlation & Regression	Chapter 12
Monday	12/8	Final Exam 8-10:00 in ML 109	