

**Psych 222**  
**Psychological Statistics**  
**Summer 2021**

***Course Location and Time:***

*Location:* Zoom (enter zoom link here);  
Monday to Thursday 10am→11:50pm MST  
[Zoom Class Link](#)  
[Office Hours Link](#)

***Instructor information:***

*Instructor:* Patrick Hanni  
*Office:* Skaggs 004  
*Email:* [patrick.hanni@umontana.edu](mailto:patrick.hanni@umontana.edu)  
*Office Hours:* Via zoom; 9 to 10 Monday to Thursday, and by appointment

***Text:***

Statistics for Psychology (6th ed) by Aron, Aron, & Coups (ISBN:9780205258154, Pearson).

***Course Description:***

This course is designed to introduce students to the concepts and practical skills necessary for psychological research. Topics going to be discussed will include: displaying/describing data, normal curve, regression, probability, statistical inference, confidence intervals, hypothesis testing, and real world applications for each.

***Course Objectives:***

The primary objective of this course is supply students with an opportunity to understand statistical methods most commonly used in psychological, social, and related sciences by ensuring the student can:

- Demonstrate knowledge of probability and the standard statistical distributions.
- Understand the common statistical techniques and terminology used in studies that are presented in the popular press and psychology related journals.
- Use and understand the principal numeric and graphical techniques to display/summarize data.
- Discuss and explain what a statistic is and how it is used in the field of psychology.

This is a large amount of information to cover but not impossible. No superhuman intelligence is required, but rather an active participating and learning student with the ability to dedicate time to the material. Completion/attempting of assignments on time is also necessary to ensure the pace is not overwhelming.

***Course Requirements:***

The course is combination of remote lectures, in class activities, homework, a midterm, and a final exam.

***Attendance:***

In this course, most of the learning is in the lecture itself. It is imperative to attend, therefore class attendance is mandatory. In a remote setting, it will be measured by camera being on the entire time and paying attention during the lecture and taken randomly throughout the session so it is not a consistent time (i.e. you are unable to have the camera on at the beginning and turn it off later to then get attendance). If you are unable to attend, please notify me in advance so a

make-up assignment can be arranged. If too many days are missed, an instructor has the ability to determine if you should drop the course or not.

***Assignments:***

The course is comprised of weekly assignments that are designed to evaluate your understanding of course material. The spirit of the class is to make the take-home exercises as useful and applicable as possible. Therefore, assignments are handed out in class on Thursdays. The second half of Thursday lectures are designed to be homework workshops. During that time, you can work on the assignments on your own while having the instructor available for questions. Assignment sets are to be **submitted at the beginning of Monday classes** of the following week and are graded on a “credit vs. no credit” scale. Feedback will be given for each assignment but **NOT THE CORRECT ANSWERS**. You must come to the instructor for the correct solutions and approaches to problems. **Late assignments will NOT be accepted.**

***Extra Credit:***

You can earn up to **2 extra points** that can count toward your final exam grade by completing SONA study. For this summer, there will be one study open for our course: Metacognitive Processes. To find out more about this study, check SONA website: [https://umontana.sona-systems.com/exp\\_info.aspx?experiment\\_id=36](https://umontana.sona-systems.com/exp_info.aspx?experiment_id=36)

The deadline for study completion is June 18 . If you choose to participate and use the SONA credit to extra points for Psyx 222, you will need to assign SONA credits to **PSYX222, Sect01B, Su2021, Hanni** to receive the credit for this course.

***Evaluation:***

Final grades will be based on the following: **Midterm** (100 points in total) 30%; **Final Exam** (100 points in total) 30%, **Portfolio** (100 points in total) 35%, **Attendance/Participation** (23 points, one for each day) 5%.

A complete portfolio includes all five assignments with revisions. Each marked AND revised is worth 20 points

To maximize your grade: if your grade on the final is better than the midterm, your final exam will count toward 50% of your final grade and your midterm 10%.

The final exam is cumulative over the entire course, and there are no make-up tests in this course.

Final letter grades will be determined by the scale listed below. No rounding will be done and is in a traditional format:

Percentage of Points	Grade
100→90	A
90→80	A-
79→77	B+
76→73	B
72→70	B-
69→67	C+
66→63	C
62→60	C-
59→57	D+
56→53	D
52→50	D-

<50	F
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***Course Website:***

Materials for the course will be available on the internet via Moodle. Class announcements and assignments will also be posted when necessary, so I implore you to incorporate daily checking into your routine. In addition to checking Moodle, I will send out emails for reminders or any changes to the schedule or important announcements.

***Academic Honesty:***

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or disciplinary sanction by the University. All students must be familiar with the Student Conduct Code.

***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:***

You are welcome to email me with general questions about the course, and I will typically respond within 48 hours. However, if you have a lot of questions, I prefer you come to office hours.

***The Learning Environment:***

I would like this class to have a relaxed atmosphere where students can feel free to ask questions and comment on the material being presented and discussed. Please do not hesitate to raise your hand for clarification on a topic, to ask about related material, or to raise an interesting point. However, remember that not everyone has similar viewpoints, so please try to be respectful of your classmates and their opinions.

Another way to create a respectful and productive learning environment is to ensure that it is free from distractions. Therefore, please turn off your cell phones and other personal electronic devices prior to coming to class. Repeated use of personal electronic devices during class time will result in points being deducted from your course grade. If you wish, you may use a laptop or tablet to take notes. However, if I see that you are emailing, surfing the web, or using it for any non-class-related purposes, you will lose the privilege of using it in class.

This goes for zoom as well. Due to the speed of the class and the remote nature of the class, if you end up surfing the web it will leave you behind and make it hard to surmount issues in order to catch back up.

## ***PSYX 222 Course Calendar:***

*Note: This calendar is subject to change with an appropriate notice from the instructor (Patrick Hanni)*

<b><i>Week #</i></b>	<b><i>Date</i></b>	<b><i>Topic</i></b>	<b><i>Reading/Assignment Due</i></b>
<b><i>Week 1</i></b>	10-May	Introduction Basic Concepts	Chapter 1
	11-May	Frequency Tables/Central Tendency, Variability and Standard Deviation	Chpt1/Chpt2
	12-May	Z scores and Normal Distribution	Chpt3
	13-May	Probability and Assignment	Chpt3
<b><i>Week 2</i></b>	17-May	Introduction to Hypothesis Testing	Chpt4 <b><u>ASSIGNMENT 1 DUE</u></b>
	18-May	One tailed and two tailed hypothesis tests	Chpt4
	19-May	Hypothesis Tests with Means of Samples	Chpt5
	20-May	Estimation, confidence intervals, and standard errors	Chpt5
<b><i>Week 3</i></b>	24-May	Decision Errors	Chpt6 <b><u>ASSIGNMENT 2 DUE</u></b>
	25-May	Effect Size and Power	Chpt6
	26-May	Review	
	27-May	<b><u>(MIDTERM)</u></b>	
<b><i>Week 4</i></b>	31-May	Memorial Day → No class	Chpt7 <b><u>ASSIGNMENT 3 DUE</u></b>
	1-Jun	Introduction to t tests	Chpt7
	2-Jun	T tests for independent means	Chpt8
	3-Jun	Effect size and power for t test	Chpt8
<b><i>Week 5</i></b>	7-Jun	ANOVA introduction	Chpt9 <b><u>ASSIGNMENT 4 DUE</u></b>
	8-Jun	Planned Contrasts and Post Hocs	Chpt9
	9-Jun	Factorial ANOVA	Chpt10
	10-Jun	f-ANOVA assumptions and cases	Chpt10
<b><i>Week 6</i></b>	14-Jun	Correlations	Chpt11 <b><u>ASSIGNMENT 5 DUE</u></b>
	15-Jun	Chi Square Tests	Chpt13
	16-Jun	Review Session	
	17-Jun	<b><u>FINAL EXAM</u></b>	<b><u>Portfolio Due</u></b>