

Psychology 3020: Research Methods II
Spring, 2018

(tentative syllabus)

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TA:
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Text:

Statistics for Psychology (6th Edition) by Aron, Coups and Aron

and an alternative book that would work is:

Statistics for the Behavioral & Social Sciences: A Brief Course (5th Edition) by Aron, Coups, and Aron

(Note, however, that with students and instructors using different books, page numbers and Chapter numbers will not match up and so students must seek out the chapter in their own text that matches the one being discussed. This course was originally based on the 4th edition of the recommended textbook (first book listed above). That 4st edition is long out of print; the current edition (6th) is very expensive and may present the topics in a different order than the 4th edition that I continue to follow. For the two texts listed above, one of them includes a chapter on Correlations early in the text while the other has this chapter later in the text. Also, the “Briefer Course” combines chapters into a single chapter. No matter who presents the material, a mean is a mean, variance is variance, and a p value is a p value in every book you pick up. In other words, the main ideas of this course have not changed in a hundred years. You will find variation in the symbols that are used in the formulas, and variations in the steps used to calculate the statistics, but every method should arrive at the same numbers given the same set of data.)

Course Overview and Use of a Calculator:

This course is about the concepts and calculations involved in the statistical analysis of data. You will need a calculator for this course. A basic one will do as long as it has a square root key. I recommend a calculator that has a summation key. If you take the extra time to learn how to compute means and variances on it fluidly, it may save you time on exams and projects. You will find it helpful to bring your calculator to lectures.

Course Structure, Grading, & Assignments

This course has “lecture” sessions and “lab” sessions; however, lectures will be given by the TA during lab sessions to instruct you on how to use SPSS. Also, you will do calculations and other exercises in class on lecture days with the instructor. So, what is the difference between lectures and labs? First, the TA handles the latter and the instructor handles the former. Second, there will be more lecture material during lectures and more hands-on calculating during labs. Both will cover material that will count toward the grade you will earn. Both will have exercises that will contribute towards your final grade and both will have exams.

You will have three exams based on lecture material and two lab exams. You will have exercises in both the lecture part of the class and the lab part of the class.

Exams on lecture material with the instructor will be largely or exclusively multiple choice. You will not be permitted to use notes or the book, and you *will need your calculator*. Many multiple choice questions will be based on terms that are presented in the textbook. Lecture material will be covering examples and topics from the book.

Lab exams will ask you to analyze data on the computer using SPSS. **You will be able to use notes, problem sets, books, etc. on the lab exams, but you may not work with another student during the exam.** Lab exams are designed to be very straightforward, but if you have not done the labs on the exercises (**problem sets**), you will struggle to complete the lab exam in the class time.

There will be four assignments or problem sets given in the lab portion of the class that will involve conducting analyses in SPSS. You are required to complete three of the four lab assignments. Therefore, there will be no excuses for not turning in any of the remaining three assignments. No late assignments will be accepted. Assignments will be due at class time (2 pm) on the due date and must be turned in in class. You may work with your classmates on the lab assignments.

Each of the three exams from the lecture part of the class will be equal to 20% of your final grade (a total of 300 points). The exercises (take home or in class) will be 20% of your final grade (100 points, all grades on exercises will be averaged and this will determine this 20% of the final grade). The lab part of the class (assignments and exams) will be 20% of your final grade (100 points).

Tentative Grade Rubric:

Points	Grade	
485-500	A+	88%-100% is the A range
460-484	A	
440-459	A-	
425-439	B+	76% to about 87% is the B range
400-424	B	
380-399	B-	
365-379	C+	64% to about 75% is the C range
340-364	C	
320-339	C-	
305-314	D+	
280-304	D	
265-279	D-	
below 265	F	

The table above likely indicates the grade that is *guaranteed* by earning those points. If any changes are made at all, I typically adjust the grading scale in your favor if a test turns out to be harder than I anticipate. It is rare that I adjust it so that it is a little harder for you (via number of points earned) to earn the grade listed, but it may happen.

Policies

Attendance. Your attendance at lecture and lab is ALWAYS optional. We do not keep track, in any way, of your attendance. Attendance is strongly encouraged. Also, you must attend lectures to receive lecture information from the instructor (the instructor will not provide “make up” lectures). The same is true of material presented in labs. You are expected to come to class and if you miss a lecture you must obtain the notes from someone in the class or use your textbook to learn the material.

Late Assignments. Exercises comprise approximately 1/4th of your grade when you consider exercises that are done in the lecture part of the class and those in the lab part of class. Students are allowed to miss TWO EXERCISES FROM THE LECTURE PART OF THE CLASS and ONE EXERCISE FROM THE LAB PART OF THE CLASS. Any late or missing exercises from a student will receive a ZERO and that zero (for the lecture part of the class) will be averaged into the 20% of the class used for the 100 points (towards the total) for the exercises. *Please note, this policy is not to punish you or treat you like a child.* The TA’s and grader are EXTREMELY busy people who have to grade over 100 exercise sets. They would go bonkers keeping track of assignments or parts-of-assignments trickling in over the semester. For this reason, I will not excuse a late assignment for any reason – it will burden my TA’s. We cannot allow

for excuses such as “your computer would not allow you to send someone the exercises” or “my computer cannot print my exercise” or “how come you did not receive the document since I emailed it to you”. You are responsible for handing in a hardcopy of the exercise when it is due in class. If something goes wrong for you and you do not hand it in in time, it will count towards the 2 (1 for lab) that you are allowed to miss or you will receive a zero. **Don’t wait until the night before it is due to do your assignments, and then you won’t ever have a late assignment.**

Missed Lab Exams can be made up if an appropriate, documented excuse is provided. Make-up exams will be scheduled based on the availability of the TA.

A Note about Labs

In lab classes, we will use SPSS Windows - a software package used for analyzing data.

For the majority of students, most lab assignments cannot be fully completed in the allotted lab time. Our goal is to teach you what you need to know to complete your lab assignment at your own pace.

A Note about Working Together.

Early in the semester I will give you an opportunity to connect with other students in the class, and many students end up in regular study groups to work on problems and labs. I encourage you to connect with a study group or find a study partner if it helps you. Most semesters we have at least one official “Study Buddy”. In your study groups you may work problems together, think through questions or lab assignments, even compare results and outcomes. It is especially helpful to work with another student in lab, where missing a single keystroke might send you off into a completely separate place in the SPSS program.

WARNING:

*In the past there has been confusion about what constitutes **Academic Dishonesty** on these problem sets.*

Each individual must work each problem that they turn in – no photocopies, duplicate printouts, or rote copying of another’s work. NEVER share electronic files of essays or lab write-ups. Because lab write-ups are done in formal APA style, they tend to be quite similar to one another, even when written by students who are not working together at all. However, there is a difference between two similar write-ups and two identical write-ups (that would be two printings of the same document with perhaps just the font and size changed).

EACH STUDENT SHOULD WRITE UP THE LAB IN HIS/HER OWN WORDS.

Note for Students with Disabilities:

If you anticipate barriers related to the format or requirements of this course, if you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office.

PLEASE NOTE: *Most students who are eligible for extra time on tests will need that accommodation in this course. If you are eligible for extra time on tests, do not wait until after you complete less than half of the first test to figure out that this is a class where you need to register. ASAP please register with the Office of Disability Services (<http://disabilityservices.missouri.edu>), S5 Memorial Union, 573- 882-4696, and then notify me of your eligibility for reasonable accommodations. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.*

Note about Discrimination Experiences:

The University community welcomes intellectual diversity and does not tolerate discrimination on the basis of race, color, religion, national origin, ancestry, sex, age, disability, or status as a disabled veteran or veteran of the Vietnam era. In addition, equal treatment and opportunity shall be provided to all regardless of sexual orientation. Exposure to discrimination and/or insensitivity to cultural issues impairs the University's goals of facilitating the transmission of knowledge, pursuit of truth, and the development of students. If you feel that you have been exposed to discriminatory practices and/or insensitivity to cultural issues in this or any other setting affiliated with MU, you have the right to have your concerns addressed. **One way to begin addressing these concerns would be to meet with me privately after class or outside of class during office hours or by appointment.** Alternatively, you may want to speak to the Vice Provost for Minority Affairs, International Programs, and Faculty Development (MAIPFD). Office: 211 Jesse Hall; phone: 882-9061; email:mafd@missouri.edu). In addition, the Vice Provost can assist students with filing of informal/formal complaints and grievances. For more information about the rights of students who experience discriminatory practices and/or insensitivity to cultural issues, please see:

<http://www.missouri.edu/~mafwww/> (Office of the Vice Provost, MAIPFD)
<http://web.missouri.edu/~mbookwww/NoticeofNondiscrimination.html>

Students who have questions concerning the quality of instruction in this class should first address concerns to me, or to Dr. Dennis Miller, the director of undergraduate studies in Psychology (Millerd@missouri.edu). Concerns may also be directed to either the Departmental Chair or Divisional leader or Director of the [Office of Students Rights and Responsibilities](http://osrr.missouri.edu/) (<http://osrr.missouri.edu/>). All students will have the opportunity to submit an anonymous evaluation of the instructor(s) at the end of the course.

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, please contact me.

If you need an alternative format of this syllabus, please see the instructor. If you have any special needs or concerns or accommodations because of a disability or if you have emergency medical information to share with me, then please see the instructor immediately after class or in my office and/or contact Disability Services in Brady Commons (A038 Brady, 882-4696).

Some of the material covered in the lecture is not present in the book. Hence, class attendance is essential. Not all book material is covered in lecture, so students must study the text. There will be three exams in the course. Each of the exams will count 33.3% towards the final grade. The exams will not be cumulative and will consist of multiple choice questions.

Anyone caught cheating on an exam will receive zero points for that exam and may be given a failing grade for the class. All students must be on time on the day of a scheduled exam. Anyone arriving late on the day of an exam may receive a failing grade for the exam or may be required to take a make-up exam (which might be an oral exam). Aside from that possibility, there will be no make-up exams without a written excuse from a physician. Make up exams will be or can be questions that are definitions/short answers/long answers. You must make up any exam or quiz within 10 days of the scheduled test or you will receive zero points for that exam.

Very Tentative Schedule of Events in our Classroom:

1/16 Lecture by TS
1/18 Lecture by TS
1/23 Lecture by TS
1/25 Lecture by TS
1/30 Paige SPSS
2/1 Paige SPSS
2/6 Lecture by TS
2/8 Lecture by TS
2/13 Lecture by TS
2/15 TODD REVIEW DAY for LECTURES
2/20 TEST ON LECTURES by TS
2/22 Lecture by TS
2/27 Lecture by TS
3/1 Paige SPSS
3/6 Paige SPSS

3/8 Lecture by TS
3/13 PAIGE QUIZ
3/15 Lecture by TS
3/20 Paige SPSS one way ANOVA
3/22 Paige SPSS one way ANOVA
4/3 TODD REVIEW DAY for LECTURES
4/5 TODD TEST ON LECTURES
4/10 Lecture by TS
4/12 Lecture by TS
4/17 Paige SPSS 2 factor ANOVA
4/19 Paige SPSS 2 factor ANOVA
4/24 PAIGE QUIZ
4/26 Paige LECTURES and SPSS for correlations
5/1 Lecture by TS
5/3 REVIEW DAY for Lectures by TS
Final exam during final exam week (noncumulative)

Learning Strategy: 8 Principles to Help you Succeed:

1. **Come to every class**
2. **Pay full attention during class**
3. **Take notes diligently – in your handwriting**
4. **Do not rely on anyone else's notes**
5. **Read every page of text carefully-Even if just one page per night**
6. **Do not assume you can pass or do well in this class without using the book**
7. **Don't wait until right before the exam to study and do the readings**
8. **If you do not get the grade you hoped for, look over this list as an explanation**

For Lectures by TS:

Exam 1 on Chapters 1-4 (pp. 1-25, 44-60, 68-91, 108-124): includes many topics such as measures of central tendency, standard deviation, variance, standard errors, frequency distributions, z scores, hypothesis testing

Exam 2 on Chapters 7-9 (pp. 226-258, 275-304, 316-344): includes t tests and one factor ANOVA

Exam 3 on Chapters 10-11 (pp. 377-397, 439-464): includes Factorial ANOVAs, correlations, nonparametric tests