

## PSY 295: Data Analysis in Psychological Research – 3.0 Credit Hours Summer Session One, 2021

COURSE DURATION: MAY 17 - JULY 1ST, 2021 EDT. ALL TIMES NOTED IN THIS SYLLABUS ARE IN EASTERN DAYLIGHT TIME (EDT).

**INSTRUCTOR: JEEWON OH (OHJEEWON@MSU.EDU)**

Feel free to email or set up a short appointment to introduce yourself or say hi at the beginning of the course 😊

### EMAIL POLICY:

Please email me ([ohjeewon@msu.edu](mailto:ohjeewon@msu.edu)) if you have any questions. You can expect a reply from me within **one business day. Emails sent after 5pm EST on Fridays will be answered the following Monday.** Therefore, if you send an email regarding an assignment that is due the next day, I can't guarantee an answer before it is due so please plan accordingly!

Please use the following guidelines when e- mailing:

- **First, double-check whether this question can be answered by looking in the syllabus/D2L course site**
- Use **PSY 295** in the subject line that makes it clear you are a student in this course asking a question. This helps to prevent e-mails from going directly to the junk folder.
- Please address the e-mail properly (i.e., Hi Jeewon, Dear Jeewon).
- Proofread your e-mail. Is your question conveyed clearly with correct grammar and spelling?
- Please sign your e-mail with your full name so I know who you are.
- Be polite.
- Check your e-mail regularly! During the course, I will e-mail you from time to time with announcements and reminders. Please read these e-mails as soon as you receive them, and please check your e-mail regularly.

### OFFICE HOURS: 2 OPTIONS

- Every Wednesday 11:00 AM - 12:00 PM
- Or by appointment. Please schedule an appointment using this link: <https://jeewonoh.youcanbook.me/> No email to set up an appointment is necessary.
- All office hours are held at <https://msu.zoom.us/j/96194714175>  
Meeting ID: 961 9471 4175  
Passcode: PSY295

## REQUIRED MATERIALS (NEEDED BY MAY 17, 2021):

- Aron, A., Coups, E. J., & Aron, E. N. (2013). *Statistics for psychology* (6th ed.). Upper Saddle River, NJ: Prentice Hall.
- Calculator (a phone calculator is just fine!)

## COURSE OVERVIEW:

This course is designed as an introduction to basic concepts and procedures used in descriptive and inferential statistics, especially as applied to the behavioral sciences. This course will cover descriptive statistics (such as central tendency, measures of dispersion, and standardized scores) and inferential statistics (such as z- and t-tests, ANOVA, correlation, regression, and chi-square). Finally, the course will link various statistical analyses with particular research questions pertaining to various branches of psychology.

## COURSE GOALS:

By the end of this course, you should be able to do the following: 1) Explain basic concepts of statistics. 2) Summarize numeric data by computing descriptive statistics and by creating tables and graphs. 3) Differentiate between different inferential statistics and understand their applications to psychological research. 4) Compute various inferential statistics. 5) Test hypotheses and interpret research findings. 6) Apply the correct statistical analysis when provided with a specific research question.

## WORKLOAD:

Summer courses are intense, and statistics takes time to fully understand. **Plan to spend around 20 hours per week working on PSY 295.** This includes the time you spend reading the text, viewing lectures, working on homework problems, taking quizzes, and studying the material. **The best way to be successful in PSY 295 is to stay on top of the material.** We will follow a compressed schedule during our 7 weeks together so it can be easy to fall behind if you are not self-disciplined. Remember, we will cover the same material that is normally covered in an entire semester! Homework is due each week. Likewise, you will have to complete six quizzes that will occur at the end of each week starting in Week #2. You should commit yourself to seven weeks of working very hard. **Do not plan a summer vacation in the middle of this class!** If these considerations do not fit with your plans or your personality, then drop this class as soon as possible. Note that you must have access to the required textbook to succeed in this course.

## ONLINE COURSE INFORMATION:

This version of PSY 295 will be held entirely online through the Desire 2 Learn (D2L) course management system (<https://d2l.msu.edu/>). All lectures, quizzes, and homework assignments will be administered online on D2L. Due to the online nature of this class, you will need to have a high-quality computer with consistent access to a high-speed internet connection. **You need to have access to high-speed internet when all of the course assignments are due.** If your internet connection is down when you need to turn in a homework assignment or take a quiz, it is your responsibility to get access to the internet ASAP! **In the case of missing deadlines because of internet connectivity problems, I cannot give extensions on quizzes and homework assignments.** Access to a printer is also strongly recommended.

## PSY 295 COURSE SCHEDULE: 2021

### DISCLAIMER:

This is a general indication of when we will cover the topics in the course. However, as the instructor, I reserve the right to adjust this schedule according to the pace of the course and the needs of the students. This also includes making any changes that I deem necessary to the details and/or policies listed in this syllabus. Check D2L regularly to keep up with the topics. You will be given notice of any changes. Also, please know that you are responsible for keeping track of all homework assignments and quizzes. The instructor is not responsible for reminding you about upcoming deadlines.

### WEEKLY BREAKDOWN

WEEK	DATE	LECTURE TOPICS	READING	ASSIGNMENTS DUE
1	5/17-5/21	<ul style="list-style-type: none"><li>• Displaying Data</li><li>• Central Tendency/ Variability</li></ul>	Ch. 1-2	<b>Homework 1: 5/20 (5 p.m.)</b>
2	5/24-5/28	<ul style="list-style-type: none"><li>• Key ingredients for inferential statistics</li><li>• Introduction to hypothesis testing</li></ul>	Ch. 3-4	<b>Homework 2: 5/27 (5 p.m.)</b> <b>Quiz 1: Open 5/27-28</b>
3	5/31-6/04	<ul style="list-style-type: none"><li>• Hypothesis tests with means</li><li>• Effect size and power</li></ul>	Ch. 5-6	<b>Homework 3: 6/03 (5 p.m.)</b> <b>Quiz 2: Open 6/03-6/04</b>
4	6/07-6/11	<ul style="list-style-type: none"><li>• <i>t</i>-tests: Single sample and dependent means</li><li>• <i>t</i>-tests: Independent means</li></ul>	Ch. 7-8	<b>Homework 4: 6/10 (5 p.m.)</b> <b>Quiz 3: Open 6/10-6/11</b>
5	6/14-6/18	<ul style="list-style-type: none"><li>• Introduction to ANOVA</li><li>• Factorial ANOVA</li></ul>	Ch. 9-10	<b>Homework 5: 6/17 (5 p.m.)</b> <b>Quiz 4: Open 6/17-6/18</b>
6	6/21-6/25	<ul style="list-style-type: none"><li>• Correlation</li><li>• Prediction</li></ul>	Ch. 11-12	<b>Homework 6: 6/24 (5 p.m.)</b> <b>Quiz 5: Open 6/24-6/25</b>
7	6/28-7/1	<ul style="list-style-type: none"><li>• Chi-Square tests</li><li>• Non-parametric tests</li></ul>	Ch. 13-14	<b>Homework 7: 7/1 (5 p.m.)</b> <b>Quiz 6: Open 6/30-7/1</b>

Technical Problems: Problems with D2L? Call the MSU HELP LINE: (844) 678-6200 or (517) 432-6200.

Help is available 24 hours / 7 days a week! The MSU Help Line will log your problem, and in turn, report the details to us. The help line can also help troubleshoot issues with your computer. Feel free to notify me via email about any unresolved issues; however, know that I am not available around the clock so please make sure that you report problems to the help line immediately and try to get them resolved ASAP. Time differences will not be an acceptable excuse for not reporting problems to the help line; they are available 24/7 throughout the course.

### EVALUATION CRITERIA:

#### HOMEWORK:

Statistics are better understood when they have been applied! 😊 There are 7 homework assignments to practice what you have learned, and they account for 10% of your grade. Homework will be available on D2L from 8am of

the Monday of the week that the assignment is due. **All homework is due by 5pm ET of the Thursday of that week. There is no back-tracking for homework assignments, meaning after you answer a question, you will not be able to return and change your answers later.** There are no make-ups for homework assignments; instead, your two lowest homework assignment grades will be dropped. Therefore, only your top 5 homework grades will be counted towards your final grade. You will be able to review incorrect homework responses on the Friday after each assignment closes.

#### QUIZZES:

There are six quizzes in PSY 295. Each quiz will be worth 15% of your final grade. These will occur at the end of Weeks 2 to 7 in the course. You will have 1 hour to complete the quiz starting from the time that you begin to take the quiz. **The quizzes will be available on D2L from 5 pm on Thursday until 5 pm on Friday (except for Quiz #6, the last quiz, which will open from 5pm on Wednesday (6/30) to 5 pm on Thursday (7/1)).** You can take that quiz anytime during that 24-hour window.

**Do not start the quiz after 4 pm EST on the day that it is due, because you will not complete the quiz by 5 pm ET! There is no back-tracking for the quiz, meaning after you answer a question, you will not be able to return and change your answers later.** There are no make-ups for quizzes without a certified medical excuse provided by a doctor's note. You will be able to review incorrect responses on the Saturday after the quiz closes (except incorrect responses for the last quiz will be available to view immediately after the quiz closes).

#### GRADING:

There is a total of 500 points in this course. Here is the breakdown per requirement:

Requirement	Points	% of Grade
Top 5 Homeworks (out of 7)	50	10%
Six Quizzes	450	90%
<b>Total</b>	<b>500</b>	<b>100%</b>

Your final grade is based on the total number of points earned in this course. Numerical grades will be assigned according to the following scheme:

Total Points	Grade
450 – 500	4.0
425 – 449.99	3.5
400 – 424.99	3.0
375 – 399.99	2.5
350 – 374.99	2.0
325 – 349.99	1.5
300 – 324.99	1.0
0 – 299.99	0.0

#### POLICY ON GRADE CHANGES:

**These are strict cut-offs and I will adhere to them.** At the end of the semester, if you believe that I made an error in calculating your grade, please let me know. I will check your grade, and I will change it if I have made an error.

**This is the only circumstance under which I will change a grade.** I do not round up grades or give extra credit opportunities.

#### HOW TO VIEW YOUR GRADE IN D2L:

1) Select your course. 2) Click the Assessments dropdown. 3) Select Grades.

#### D2L RECOMMENDATIONS AND REQUIREMENTS:

Please follow these suggestions to prevent problems during your participation in this course:

1. Use a recommended browser.
2. Clear your cache and cookies before starting a quiz.
3. Have D2L open only to the quiz browser. If you have the course open in a second browser then you may have guest status in the exam browser and be logged in with your NETID in the other. Your quiz could end up with blank sections even after you enter data or it can skip questions.

#### ACADEMIC HONESTY: ANY AND ALL FORMS OF CHEATING ARE UNACCEPTABLE.

Students are expected to complete homework and quizzes individually and without outside help. Any student caught cheating on exams or homework will receive a ZERO in this course and be reported to the University. You can only use a basic calculator for your quizzes.

Legalistic Details: *Article 2.3.3* of the *Academic Freedom Report* states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." The Department of Psychology adheres to the policies on academic honesty as specified in General Student Regulations 1.0, *Protection of Scholarship and Grades*; the all-University Policy on *Integrity of Scholarship and Grades*; and Ordinance 17.00, Examinations. For extensive details see *Spartan Life: Student Handbook and Resource Guide*. Further information about cheating can be found on a website provided by the MSU Ombudsman (<https://www.msu.edu/~ombud/academic-integrity/student-faq.html>).

Make sure you are familiar with MSU definitions regarding academic dishonesty. Ignorance is not an excuse. The bottom line in PSY295 is simple – work hard, don't cheat, and be happy!

#### ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:

If you need special assistance for this course because of a disability, please contact the Resource Center for Persons with Disabilities to establish reasonable accommodations. More information can be found at <http://www.rcpd.msu.edu> or by calling (517) 884-7273 (TTY: 517- 353-1293).