**Syllabus - Psychology 300 Statistics in psychology (4 credits)**

**Section 005**

***Instructor:*** Ze Zhu

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***Email:*** zzhu5@gmu.edu

***Office Hours:*** Thursday, 2:00pm-3:00pm

Lecture: Tuesdays 07:20 pm-10:00 pm

W 1008

Required Text: Salkind, N. J. (2016). *Statistics for People Who (Think They) Hate Statistics* (6th edition). Thousand Oaks, CA: Sage Publications. ISBN: 9781506396477

Overview:

Psychology 300 is an introduction to statistics as it applies to psychological research. The emphasis in the lecture will be on understanding and applying statistical tests to psychological data, as well as on mathematical derivations. By completion of the course, you should be able to select appropriate statistics, apply them, and make correct statistical decisions to answer many different questions of interest to psychological researchers.

Course Schedule:

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| **Week** | **Date** | **Lecture topics/Activities** | | **Assigned reading** |
| 1 | 8/29 | | Course Overview & Introduction  Measures of Central Tendency | Chapters 1, 2 |
| 2 | 9/5 | Measures of Variability  Graphing | | Chapter 3, 4 |
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| 3 | 9/12 | Correlations | | Chapter 5 |
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| 4 | 9/19 | Reliability & Validity  Exam Review | | Chapter 6 |
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| 5 | 9/26 | **EXAM 1**  Hypothesis Testing | | Chapter 7 |
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| 6 | 10/3 | Normal Curves  Statistical Significance | | Chapter 8, 9 |
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| 7 | 10/10 | Class cancelled (Columbus Day recess) | |  |
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| 8 | 10/17 | z tests  t-tests | | Chapter 10  Chapter 11, 12 |
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| 9 | 10/24 | t-tests  Analysis of Variance | | Chapter 13 |
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| 10 | 10/31 | Analysis of Variance  Exam Review | | Chapter 13 |
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| 11 | 11/7 | **EXAM 2**  Factorial Analysis of Variance | | Chapter 14 |
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| 12 | 11/14 | Factorial Analysis of Variance  Significance Testing for Correlation Coefficients | | Chapter 14, 15 |
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| 13 | 11/21 | Significance Testing for Correlation Coefficients | | Chapter 15 |
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| 14 | 11/28 | Linear Regression  Non-parametric Tests | | Chapter 16, 17 |
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| 15 | 12/5 | Wrap-up  Exam Review | |  |
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| 16 | 12/19 | | **EXAM 3: 7:20 pm-10:00pm** |  |

**Course Description:** We will cover many of the basic descriptive and inferential statistics that are used in the field of psychology. This is a 4-credit course, which includes both a lecture section and a lab section. During the lecture sessions, I will cover the topics listed on the syllabus and take you step-by-step through statistical analyses. During your lab sessions, you will review and practice the topic(s) from that week’s lectures; you will also get hands-on experience using SPSS (Statistical Package for the Social Sciences) to analyze data.

**Criteria for evaluation:**

Grades in this course will be based on 4 components:

1. EXAMS

Three exams will be given. The two mid-terms are NOT cumulative. You are responsible for all material covered in assigned readings and lecture/laboratory sections. Material not covered in the text is often discussed in lecture. All three exams count towards your final grade.

1. LECTURE ASSIGNMENTS

Throughout the lecture portion of the course, you will complete short assignments (total: 12 points). Almost all of these assignments will be due by next week.

1. LAB ASSIGNMENTS/PARTICIPATION

The lab portion of this course accounts for 25 points toward your final grade. The lab instructor will clearly communicate the expectations for the lab and will be responsible for all lab-related grading.

1. RESEARCH PARTICIPATION

Each student is required to participate in three hours of credit as a participant in psychology experiments. Alternate experiences may be substituted. You can sign up for a Sona Systems account by going to the website (<http://gmu.sona-systems.com/>) and then clicking on the “Request an account here” link under New Participant. Each hour will count as 1 point.

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| Assignments | Percentage |
| Exam1 | 15% |
| Exam2 | 15% |
| Final Exam (Exam 3) | 30% |
| Lecture Assignments | 12% |
| Lab Assignments/Participation | 25% |
| Research via Sona Systems | 3% |

**Class Grading Scale**

97-100 = A+

94-96 = A

90-93 = A-

87-89 = B+

84-86 = B

80-83 = B-

77-79 = C+

74-76 = C

70-73 = C-

60-69 = D

0-59 = F

General Policies

Attendance: Although I will not take attendance in lecture, coming to class is important. Material will be presented in lecture that is not covered in the book and you will be held responsible for that information (i.e., you will be tested on information presented in lectures). You may also miss announcements about scheduling changes and extra credit opportunities. You are responsible for all announcements made in lecture regardless of whether or not you attend class.

Late work: Work will be penalized at a rate of 5 percent per day. For example, if an assignment that would have received a grade of 5 points is turned in four days late it will be worth 80 percent of the original grade (4 points). Non-penalty extensions will be considered in the case of a family or medical emergency.

You have one week from when I post an assignment grade on BlackBoard to dispute your grade. Please do not come to me at the end of the semester and tell me that you were present in a lecture two months ago and got a zero for the in-class assignment. My responsibility is to post points in a timely fashion; your responsibility is to confirm that you receive your earned points.

Make-up policy: If you miss any of the mid-term exams for any reasons, you have an opportunity to take an alternative exam that covers all materials in Exam 1 and Exam 2 at the end of semester. We will only have ONE make-up exam.

Class Cancellation Policy: This class will entail frequent use of email, blackboard, PowerPoint, etc. Please check blackboard and your email regularly. If class is cancelled, I will notify you by email/blackboard and how we will make the time up.

Academic Integrity: Academic integrity refers to honest and ethical behavior in all aspects of academic activity. This includes: not cheating on exams or homework assignments (e.g., copying the work of others), not passing off someone else's ideas as your own (plagiarism), not engaging in dishonesty of any kind with regard to your class participation and assignments.

**Plagiarism**: Plagiarism is the *unacknowledged* use of another person's labor, another person's ideas, another person's words, or another person's assistance. Unless otherwise stated in class, all work done for courses – writing assignments, examinations, homework exercises, laboratory reports, oral presentations -- is expected to be the individual effort of the student presenting the work. Any assistance must be reported to the instructor. If the work has entailed consulting other resources -- journals, books, or other media -- these resources must be cited in a manner appropriate to the course. Everything used from other sources -- suggestions for organization of ideas, ideas themselves, or actual language -- must be cited. Failure to cite borrowed material constitutes plagiarism. Undocumented use of materials from the World Wide Web is plagiarism. If you are caught plagiarizing or cheating, you will fail the assignment, and, depending upon the severity of the violation, you may fail the class.

**Honor Code:** George Mason University has an Honor Code, which requires all members of this community to maintain the highest standards of academic honesty and integrity. Cheating, plagiarism, lying, and stealing are all prohibited. All violations of the Honor Code will be reported to the Honor Committee. See [honorcode.gmu.edu](http://honorcode.gmu.edu/) for detailed information.

**Classroom needs**: If you have any specific needs (e.g., related to vision, hearing, learning, or medical conditions) or any religious or cultural practices, please let me know by the second week of class so that I can make the appropriate arrangements. Disabilitiesmust be documented by the Disability Resources Center (703-993-2474) for reasonable accommodations to be provided. More information can be found at <http://ds.gmu.edu>.

**Official Communications via GMU E-mail:** Mason uses electronic mail to provide official information to students. Examples include communications from course instructors, notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly. In the event that class is canceled, I will notify you via email; this email will include information about making up the missed class.

**Technology:** Regarding electronic devices (such as laptops, cell phones, etc.), please be respectful of your peers and your instructor and do not engage in activities that are unrelated to class. Such disruptions show a lack of professionalism and may affect your participation grade.

Please bring a calculator to every class. You do not need a graphing calculator; a basic calculator will suffice. We will be using a statistical software package (SPSS) during lab time.

You are not required to access SPSS outside of lab; however, you do have access to SPSS on any campus computer or off campus via the Virtual Computing Lab (vcl.gmu.edu).

Enrollment: Students are responsible for verifying their enrollment in this class. Schedule adjustments should be made by the deadlines published in the Schedule of Classes (available from the Registrar's Website: registrar.gmu.edu.). Last Day to Add: Sept. 6. Last Day to Drop: Sept 5 (no tuition penalty); Sept. 19 (33% tuition penalty); Sept. 29 (67% tuition penalty).

After the last day to drop a class, withdrawing from this class requires the approval of the dean and is only allowed for nonacademic reasons. Undergraduate students may choose to exercise a selective withdrawal. See the Schedule of Classes for selective withdrawal procedures.