

**Psychology 300-003**  
**Analysis and Interpretation of Psychological Data**  
**FALL 2007**

<b>Instructor:</b>	Patrick E. McKnight, Ph.D.
<b>Office:</b>	David King 2064/2065
<b>Office Hours:</b>	Tues/Thurs 9:30am-10:30am and by appointment
<b>Phone:</b>	(703) 993-8292
<b>E-mail:</b>	pmcknigh@gmu.edu
<b>Class Location:</b>	IN 203
<b>Class Date/Time:</b>	Tuesday/Thursday 10:30am-11:45pm
<b>Class website:</b>	<a href="http://mres.gmu.edu/PSYC300/">http://mres.gmu.edu/PSYC300/</a>
<b>Teaching Assistant:</b>	Kate LaPort (klaport@gmu.edu)
<b>Important Dates:</b>	Please see GMU academic calendar

**Required Textbook:** Gravetter, F. J. & Wallnau, L. B. (2007). Statistics for the behavioral sciences (7th ed). Belmont, CA: Wadsworth. An optional study guide is available in book store. Study resources are available at <http://www.thomsonedu.com/psychology/>.

**Course Overview:** PSYC 300 is an introductory course in statistics. By successfully completing this course, you ought to be able to compute and interpret the basic statistical procedures found in social science. Those procedures include measures of central tendency, measures of dispersion, basic probability, measures of association and measures of difference.

**Course Format:** The course meets twice each week for lecture. During those lectures, I will cover the material in the text as outlined below. Each week you will also be required to attend a lab where my TA will teach you how to conduct the procedures discussed in the lecture that week.

**Exams (60%):** Every week, a 7-10 question exam will be administered online. Please refer to the course website listed above for specifics about the location and timing of the exams. In total, there will be 13 exams. You may drop the 2 lowest exams. The exams cover material from the book, lecture and lab so it is in your best interest to read the book while also paying attention in the lecture and lab. **GIVEN THE LIBERAL POLICY THERE WILL BE NO MAKEUP EXAMS UNDER ANY CIRCUMSTANCES.**

**Lab Assignments (20%):** There will be weekly assignments for the lab. I will use only 12 of the 13 assignments to compute your grade. Successful completion of each lab gives you a **free** 20% of your grade. I suggest you attend lab and turn in your assignments. The only thing required for lab credit is that you make an effort on each assignment. **THERE WILL BE NO MAKEUP LAB ASSIGNMENTS.**

**Experimental Participation (20%):** One of the best ways for you to understand statistics is to see where the data come from and then envision how that data might be used to test hypotheses. Direct exposure to experimental research also prepares you to conduct research of your own, interact with faculty members, and understand the nature of social scientific inquiry. A total of **3 hours**

of experimental credit (or the hour equivalent for those who opt out of direct participation and wish to attend the experimental lectures) are required to satisfy this portion of your grade. Please see the following website for more details: <http://gmu.sona-systems.com/>. **PLEASE DO NOT PUT OFF THE EXPERIMENTS IF YOU INTEND TO PARTICIPATE.**

**Grading:** Letter grades will be assigned according to standard cut scores (A:  $> 90$ ; B:  $> 80$ ; C:  $> 70$ ; D:  $> 60$ ; F:  $< 60$ ). If your score falls on the high side of the range, I will assign you a “+” and similarly, if your grade falls on the extreme low-end, I will assign you a “-” with the grade.

**Cheating and the Honor Code:** I expect all students to abide by the GMU Honor Code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work. Specifically, I expect all exams and assignments to be individual efforts unless otherwise noted **in writing**. GMU honor code violations can result in failure of an assignment or exam, depending on the severity of violation. I report all violations to the Honor Committee without exception.

**Disability Accommodations:** If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through that office. Note that this provision includes the range of disabilities, including physical, psychiatric, and learning disabilities.

**Tentative Schedule:** The following is an ordered list of the topics I intend to cover and the associated readings. Please note that there are no dates associated with these topics. I will proceed when a sufficient number of students understand the material.

1. Introduction (syllabus)
2. Terms and Notations (GW 1)
3. Data and Distributions (GW 2)
4. Measures of Central Tendency (GW 3)
5. Measures of Dispersion (GW 4)
6. Transformations and Distributions (GW 5-6)
7. Central Limit Theorem (GW 7)
8. Basic Probability Theory (GW 8-9)
9. Measures of Difference (GW 10-15)
10. Measures of Association (16-17)
11. Non-parametric Procedures (GW 18)