

## Psychology 301 Section 005

Instructor: Heather Mullins

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Office Hours: Tuesday 6:00-7:00 P.M. or by appointment.

Meeting Time: Thursday 7:20-9:10 P.M.

Room: Science & Technology II 019

### Required Materials:

Shaughnessy, J.J., Zechmeister, E.B., & Zechmeister, J.S. (2009). *Research Methods in Psychology* (8<sup>th</sup> ed.). Boston, MA: McGraw Hill.

Dunn, D.A. (2008). *A Short Guide to Writing about Psychology* (2<sup>nd</sup> ed.). New York, NY: Pearson Longman.

Levin, I.P. (1999). *Relating Statistics and Experimental Design: An Introduction*. Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-125. Thousand Oaks, CA: Sage.

- You do not need to purchase this book.
- To access the book, use the following link:
- <http://magik.gmu.edu/cgi-bin/Pwebrecon.cgi?BBID=1045766>
- Scroll to bottom and click, "Electronic book available to Mason students, faculty and staff."

### Suggested Materials:

*Publication Manual of the American Psychological Association* (6<sup>th</sup> ed.).

- This book is highly suggested for this course, but it is not required
- If you plan on pursuing a career in Psychology or attending graduate school, this is a good book to purchase. Much (but not all) of the information included in this book is also available online at [apa.org](http://apa.org).

### Course Overview and Goals:

This course is designed to provide an introduction to research methods in psychology that will facilitate your understanding of the role of experimentation in the psychological sciences. It takes a holistic approach to understanding/integrating the steps of the research process. The topics in this course will cover general research issues as well as specific descriptive, experimental and applied methods. We will discuss the strengths and weaknesses of each, the ways that data are collected and analyzed, and the limits to interpretation for the various techniques.

The goals of the course are to: develop and reinforce your understanding of experimental design; develop skills for critically evaluating research studies; and understand and apply statistical principles in research design. This course will provide you the tools needed to identify a research question, select the appropriate research design for your research question, and select statistical tests that are appropriate for your research design and answer your research question. By the end of the course, you should be able to design your own study.

### Honor Code:

George Mason University has an honor code that states the following:

*To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this:*

Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

The sanctions for being found guilty of an honor code violation can include but are not limited to receiving an F in this course or permanent dismissal from the university. Honor code violations are assessed by an Honor Code Committee.

For a plagiarism tutorial, please visit: <https://www.indiana.edu/~istd/>

### Disabilities:

If you are a student with 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.

### Technology

- Email: Most communications outside of class will be completed by email. I can only respond to gmU.edu email addresses, so please only use your Mason email in correspondence with me.
- Blackboard: I will post various resources, information, and announcements on Blackboard. You should frequently check Blackboard for such information and announcements because you will be held responsible for this material.
  - Blackboard: <https://courses.gmu.edu/webct/entryPageIns.dowebct>
- Electronic databases: The lab section will include the use of online searches using PsycINFO and other electronic databases through the library website.
  - Library: <http://library.gmu.edu/>
- Statistical packages: The lab section will include the use of the Statistical Package for the Social Sciences (SPSS). SPSS is available on the lab computers.

### Absence Policy

Although attendance is not required, it is highly encouraged. Part of your grade is determined by your participation in in-class activities. If you are absent from a class, you are cannot participate in the in-class activities, thus are unable to earn the participation points.

### Missed Exam Policy

Missed exams cannot be made up. Four exams plus a final exam (5 total) will be given. Only your scores from the four exams with your best performance will count toward your total exam grade. If you miss an exam, the missed exam will be the one that is not counted toward your total exam grade.

### Missed Work Policy

If you miss an in-class activity, you cannot make-up the lost participation points. The project/presentation assignments are due the last week of class. Presentations must occur during the class period on Dec. 9, 2010. For each day that the project is late, there is a penalty of one letter grade. For example, if you earned an A on the project, and the project was one day late, then you would receive a B for the project.

### Course Requirements and Grading Details:

#### Grade:

This lecture counts for 60% of the total grade for Psychology 301. Grading will be based on participation/in-class activities, exams, a project, and research participation.

Class Participation/In-class Assignments	100 points
Exams	400 points
Project	70 points
Research Participation	30 points
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Total	600 points

#### Class Participation/In-class Assignments (100pts):

One hundred points of your course grade will be earned through class participation and in class assignments. On each of the 10 non-exam days that we meet, you will have the potential to earn up to ten points. These points cannot be earned by merely attending class nor can they be made up if you miss class.

#### Exams (400pts):

Four hundred points of your course grade will be earned by your performance on exams. There will be five exams (four plus the final), each worth 100 points. Only your scores from the four exams on which you best performed will count toward your total exam grade. Please note that there will be **no make-up exams**. If you miss an exam, the missed exam will be the one that is not counted toward your total exam grade.

The first four exams will be non-cumulative and will include multiple choice and short answer items. These exams will be administered in a two-stage cooperative examination format. The exam class period will be divided into two parts. During the first part, each person will take the exam individually. Ample time will be allowed for this. Then, all exams will be turned in to me. During the second part of the exam period, students will work in small groups and retake the same exam which may include one additional question. The expectation is that your small group will discuss the exam questions and your rationales for each answer. It is not required that the group to come consensus. Each person will then turn in his or her own group exam. The exam will be weighted such that your score from the individual portion will account for 70% of your exam grade and your score from the group portion will account for 30% of your exam grade. Let's say on exam one you earn 80pts on the individual portion and 100pts on the group portion. Your total grade for exam one would then be 86pts.  $[(.70)(80pts)+(.30)(100pts)]=86pts$ .

Rationale: I give exams to meet several objectives. The objective that you are likely most familiar with is that giving exams provides as a means by which to determine a grade for a student (assessment). But the underlying objective of giving exams is to promote student learning. Two-stage cooperative examinations have been shown to target the increased student learning objective beyond that of traditional exams (feel free to contact me for references if you would like to read more about this).

The final exam will be a cumulative take home written exam that should be typed and submitted to me by email before midnight on December 16, 2010. The exam will be distributed one week in advance, and no late exams will be accepted.

Project: Applying Research Methods Concepts (70pts):

There will be one project. By completing this project, you will have the opportunity to earn 70pts. The project will require you to apply your knowledge of research methods from a holistic perspective, but will not involve actually conducting research or writing an APA paper (the lab section addresses these areas). The purpose of the project is to show that you have an understanding of the research process that includes considerations in developing a research question, choosing an appropriate design to address the research question, and choosing the appropriate statistical tests that match the design and research question. You will not be asked to compute statistics. This project can be completed alone or with a partner. The completed project is worth 70 points. You will also prepare a brief presentation of your project. The presentation will replace the in-class activity on the final class day as the source of your participation points. Specific details about the project and a grading rubric will be provided later in the semester.

Research Participation (30pts):

Thirty points of your course grade will be earned by fulfilling the requirement to serve for 3 hours as a participant in psychological research (10 pts per hour of participation). For students who choose not to participate, attendance at alternative lectures also meets this requirement. Please sign up by using the Sona-Systems Web site. To sign up: Log on to <http://gmu.sona-systems.com>. Register with the website in order to receive a login and password to access the website's contents.

Extra Credit (up to 18pts):

You will have the opportunity to earn up to 18 extra credit points. These points can be earned by completing any combination of the following:

- Additional research participation (6 pts per hour completed)
- One page peer-reviewed journal article summary/critique (6 pts per summary/critique)
- One page critique of research findings presented "in the media" (6 pts per critique)

I will provide details for the extra credit assignments on BlackBoard.

Lab (40% of your total grade):

Psychology 301 includes both lecture and lab components that must be taken concurrently. You must be enrolled in a Psyc 301 lab section and attend the section in which you are enrolled. Lab is designed to provide hands-on experience with research and exposure to some classic research studies. The lab course fulfills the Writing Intensive requirement in the psychology major. It does so through multiple writing assignments with some feedback. A separate lab syllabus will be provided in your first lab session. It is required that students successfully complete all written assignments in order to meet the writing intensive requirement. Students who fail to meet the writing intensive requirement will not pass the course. It will count for 40% of the final grade.

Final Letter Grades

The final letter grades will be based on the scale presented below. I reserve the right to use a curve for final letter grades. If I use a curve, no individual's letter grade for the course will be reduced below the actual number of points earned (in other words: the curve has the potential to help you, but it will not harm you).

Letter Grade	=	Points from Lecture	(same as)	Percentage Points from Lecture	* 0.6	+	Lab Grade	* 0.4
A		540-600		90 to 100%				
B		480-539		80 to 89%				
C		420-479		70 to 79%				
D		360-419		60 to 69%				
F		<360		< 60%				

Important Administrative Dates:

09/06 Labor Day—University closed

09/14 Last day to add classes

10/01 Last day to drop classes

10/04-10/29 Selective withdrawal period

10/11 Columbus Day recess (Mon. classes/labs meet Tues. Tues. classes do not meet this week)

11/24-11/28 Thanksgiving recess

12/13 Reading

Course Schedule

Week	Date	Topic	Reading/Assignment (Due ON THE DAY listed)
1	09/02	Introduction & Scientific Method	Shaughnessy: Ch 1 & 2 Levin: 2.1
2	09/09	Scientific Method & Ethics	Shaughnessy: Ch 2 & 3
3	09/16	Data Analysis	Shaughnessy: Ch 12 Levin: Ch 3, 4.1
4	09/23	<b>Exam One</b>	<b>Shaughnessy: Ch 1, 2, 3, 12</b> <b>Levin: 2.1, Ch 3, 4.1</b>
5	09/30	Observation	Shaughnessy: Ch 4 Levin: 2.2.2
6	10/07	Survey Research	Shaughnessy: Ch 5 Levin: 3.6, 4.6
7	10/14	Unobtrusive Measures	Shaughnessy: Ch 6
8	10/21	<b>Exam Two</b>	<b>Shaughnessy: Ch 4, 5, 6</b> <b>Levin: 2.2.2, 3.6, 4.6</b>
9	10/28	Independent Group Designs & Repeated Measures Designs	Shaughnessy: Ch 7 & 8 Levin: 2.2.1, 2.3, 2.4, 4.2, 4.3
10	11/04	Repeated Measures Designs & Complex Designs	Shaughnessy: Ch 8 & 9 Levin: 2.3.1, 2.4.3, 2.4.4, 4.2.2, 4.4
11	11/11	<b>Exam Three</b>	<b>Shaughnessy: Ch 7, 8, 9</b> <b>Levin: 2.2.1, 2.3, 2.4, 4.2, 4.3</b>
12	11/18	Single Case Designs & Quasi-Experimental Designs	Shaughnessy: Ch 10 & 11
13	11/25	<b>No Class</b> —Thanksgiving Recess	
14	12/02	<b>Exam Four</b>	<b>Shaughnessy: Ch 10 &amp; 11</b>
15	12/09	Project Presentations *Final Exam distributed*	Projects due at start of class Student Presentations
16	12/16	<b>Final Exam—Cumulative</b>	<b>Final Exam DUE via email to <a href="mailto:hmullin1@gmu.edu">hmullin1@gmu.edu</a> before midnight.</b>

\*Changes in assignments and due dates will be announced in class.