

---

# **RESEARCH DESIGN AND ANALYSIS, PSY 3392 (001)**

## **Fall 2016, Mon/Wed 1:00 to 2:15 PM, GR 4.301**

---

### **CONTACT INFORMATION**

#### **Instructor**

**Meridith Grant, Ph.D.**

MGrant@utdallas.edu

Office: GR 4.820

Office hour: Wednesdays from 11:30 AM to 12:30 PM; by appointment; or take a chance, stop by, and knock on my office door

#### **Graduate Teaching Assistant**

**Ariel Ketcherside, M.S.**

Arielketcherside@utdallas.edu

Office: JO 4.312 or at the Center for BrainHealth

Office hour: Monday 11:45 to 12:45 PM in JO 4.312 or by appointment

### **GENERAL COURSE INFORMATION**

#### **Course Pre-requisites, Co-requisites, and/or Other Restrictions:**

You must have completed PSY 2317, PSY 3390 or STAT 1342 in order to take this course.

#### **Course Description**

Rigorous research practices are what define psychology as a scientific discipline. This course covers the scientific processes used by research psychologists to reach sound conclusions about the mind and behavior. Strategies for identifying meaningful hypotheses, implementing research practices, and interpreting and communicating research findings will be discussed.

#### **Program-Level Learning Objectives**

You will learn to:

- 1\* Describe and explain the nature of psychology as a scientific discipline
- 3\* Identify and explain different research methods used by psychologists
- 4 Understand statistical analysis strategies for examining data
- 5\* Use critical thinking to evaluate the appropriateness of conclusions derived from basic statistical analyses
- 6 Report findings in proper format
- 7\* Use critical thinking to evaluate popular media, scholarly literature, and empirical reports

*\*Denotes program-level objective*

#### **Evaluation of Objectives**

- 1 On class exams, students will be able to identify components of the scientific method, differentiate sampling procedures, research designs and analytic approaches, interpret methods and findings from assigned research articles, and discuss ethical considerations in psychological research.
- 2 On activities and assignments, students will be able to formulate research hypotheses, describe appropriate research designs, and write in APA format.

#### **Textbooks and Materials**

1. Required Textbook: Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2011). *Research Methods in Psychology*, 10<sup>th</sup> Edition, New York, NY: McGraw-Hill.
2. Additional required readings will be assigned and available on the eLearning site or campus library online resources in PDF or word document format.
3. Recommended: *Publication Manual of the American Psychological Association*, (6th Ed.) (2010). Washington, D. C.: American Psychological Association.

# CLASS SCHEDULE

Week	Date	Topics	Readings Due	Assignments Due
1	Mon, Aug 22	Introductions		
	Wed, Aug 24	Psychology in Context	Chapter 1	
2	Mon, Aug 29	The Scientific Method	Chapter 2	
	Wed, Aug 31	<i>Activity 1</i>		
3	Mon, Sep 5	Labor Day		
	Wed, Sep 7	Ethics	Chapter 3	
4	Mon, Sep 12	<i>Activity 2</i>		
	Wed, Sep 14	Communicating Research	Chapter 13	
5	Mon, Sep 19	<b>Exam 1</b>	<b>Article 1</b>	
	Wed, Sep 21	Observational Designs	Chapter 4	
6	Mon, Sep 26	Physical Trace and Archival Data	Chapter 4	
	Wed, Sep 28	Survey Research	Chapter 5	
7	Mon, Oct 3	Getting to know your data	Chapter 11	
	Wed, Oct 5	<i>Activity 3</i>		
8	Mon, Oct 10	<b>Exam 2</b>	<b>Article 2</b>	
	Wed, Oct 12	Null Hypothesis Testing	Chapter 12 (p 384-90)	
9	Mon, Oct 17	P-values, Effect Sizes, etc.	Chapter 12 (p 384-90)	
	Wed, Oct 19	<i>Activity 4</i>		
10	Mon, Oct 24	Experimental Designs	Chapter 6	
	Wed, Oct 26	Experimental Designs, Cont.	Chapter 6	
11	Mon, Oct 31	Repeated Measures	Chapter 7	Assignment 1
	Wed, Nov 2	<i>Activity 5</i>		
12	Mon, Nov 7	<b>Exam 3</b>	<b>Article 3</b>	
	Wed, Nov 9	Complex Designs	Chapter 8	
13	Mon, Nov 14	Complex Designs, cont.	Chapter 8	
	Wed, Nov 16	<i>Activity 6</i>		
14	Mon, Nov 21	Fall Break		
	Wed, Nov 23			
15	Mon, Nov 28	Small sample research	Chapter 9	
	Wed, Nov 30	Quasi-Experimental Designs	Chapter 10	Assignment 2
16	Mon, Dec 5	<i>Activity 7</i>		
	Wed, Dec 7	Applying what you know		
<b>The cumulative Final Exam will take place during the final exam time for the class.</b>				

*\*This schedule is subject to change at the discretion of the professor.*

## ASSIGNMENTS AND EVALUATIONS

1. **Exams:** Material from both lectures and reading assignments, including assigned articles, will be covered on exams. A total of *four* exams will be administered. The first three exams will each count as 100 points towards your final grade, and your lowest grade from the first three exams will be dropped. The fourth exam will be a **mandatory** cumulative final exam that counts as 200 points. Although cumulative, the final exam will heavily emphasize material that is covered following the previous exam. All exams may consist of a combination of multiple choice, true-false, fill in the blank, and short answer questions. Students are encouraged to view their exams during office hours, but exams will not be returned. Make up exams will not be offered. Missing one of the first three exams for any reason (e.g., illness, personal/family problems, car trouble) will result in a grade of zero and will serve as the grade you drop. *For each exam, you must bring Pearson Scantron #229630 (salmon-colored, landscape orientation) and a #2 pencil.*
2. **In-class Activities:** Students will complete *seven* in-class activities on the dates listed on the class schedule. Each of the activities will be worth 30 points, and your lowest activity grade will be dropped. The activities may be completed in small groups, with one activity submitted and graded for each group. Each member of a group will receive the same grade on the activity. If you arrive to class late and groups are already formed, you will complete the activity on your own. If you are not in attendance on a day in which an activity is occurring, you will receive a zero for that activity. No make-up activities will be offered.
3. **Individual Assignments:** Students will complete *two* individual assignments. Assignment will be posted on eLearning and are due by the dates listed on the class schedule. Each assignment will be worth 30 points. No individual assignments will be dropped. No late assignments will be accepted. Assignments are to be completed outside of class, *individually*: Collaborating with other students on an individual assignment will be considered an act of academic dishonesty.
4. **Class Participation:** You are expected to attend every class and to arrive in class prepared, having completed assigned readings and with access to the materials you may need for class. Class attendance will be recorded on most days throughout the semester. Your participation grade will be derived from a variety of factors: regular attendance, participation in class discussion, asking and answering questions, in-class visibility, and attentiveness. Also, because exams cover material that is presented in class that does not appear in your textbook, attendance may enhance exam performance. If you miss a class for any reason, you are responsible for obtaining the notes from another classmate, not the professor or teaching assistant.
5. **Research Exposure Credit Requirement (REC):** One requirement of all students enrolled in this class is completion of two research exposure credits. Details about this requirement can be found on a separate handout distributed on the first day of class or in the BBS Information Center on eLearning. Research exposure credits must be completed by the date found on the REC instruction sheet or your course grade will be lowered. For each credit you fail to complete, your course grade will be reduced by 1/3 of a letter grade (e.g., for 2 missing credits, a B+ will become a B-).

## COURSE POLICIES

### *Grading Policy*

Final grades will be calculated as follows: A+: 97-100%, A: 93-96%, A-: 90-92%, B+: 87-89%, B: 83-86%, B-: 80-82%, C+: 77-79%, C: 73-76%, C-: 70-72%, D+: 67-69%, D: 63-66%, D-: 60-62%, F: 59% or less.

<b>Requirements</b>	<b>Points possible</b>
Exam 1	100
Exam 2	100
Exam 3	100
Final Exam	200
In-class Activities (7 total)	210 points (30 points each)
Individual Assignments (2 total)	60 points (30 points each)
Participation	40
<b>Grand Total</b>	<b>810</b>
<i>Less lowest exam (of exams 1 to 3)</i>	<i>-100-</i>
<i>Less lowest in-class activity</i>	<i>-30-</i>
<b>TOTAL to Calculate Grade</b>	<b>680</b>

### *Course Website*

New assignments, revisions to the syllabus, announcements, and your grade will be posted on the eLearning site. You are responsible for checking this site frequently to remain aware of course updates. Make sure that you have a UTD email address on this account. Any email to students enrolled in this class will be sent through UTD email.

### *No Extra Credit*

No individualized extra credit assignments will be offered for this course.

### *Recordings*

Please do not make video and/or audio recordings of class sessions without the instructor's explicit permission. Recordings of my class made with or without permission may not be distributed in any way. This includes but is not limited to postings on the internet, websites, eLearning, or email.

### *Contacting Us*

The best way to reach us is by email to the address listed on the syllabus, not by phone or eLearning. Please put the course name (Research Design and Analysis) and section (001) in the subject line and include your first and last name in the message. You should use a UTD email address for all email correspondence. Anticipate that it may take up to 24 hours to respond to emails and more time over weekends and holidays.

### *UT Dallas Policies and Procedure*

Please go to the following link for information regarding the University's policies and procedures:  
<http://provost.utdallas.edu/syllabus-policies/>