Cedar Crest College Psychology 211: Experimental Methods 4 Credits Fall, 2008

Class/Recitation: CUR 241 W 6:00 – 9:30

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Required Texts and Materials

- Schweigert, W.A. (2003). *Research methods in psychology: A handbook* (2nd Ed). Prospect Heights, IL: Waveland Press.
- Publication manual of the American Psychological Association (5th Ed.).

All research reports will follow strict APA style guidelines. The APA Manual will also be required in PSY 336 (Cognitive Psychology) and PSY 365/366 (Psychology Research I and II), and is especially valuable for those contemplating graduate school.

- Regular Access to eCollege. You should automatically be enrolled in eCollege if you are on the roster for this class at the beginning of the semester (if you register late, you need to contact the Registrar immediately). eCollege will enable me to send/receive emails to/from everyone in the class who has an email account, and I can also post handouts or assignments to the course space which you can then print. You will be able to track your scores on assignments across the semester, so that you should always have a sense of your current grade. College policy now mandates that your "cedarcrest.edu" (the default for eCollege) must be used (NOT hotmail, yahoo, etc.). It is your responsibility to regularly check your email (At least a couple times per day) from your own computer, a library computer, or from any computer that has email access--I WILL NOT ACCEPT "I DIDN"T GET IT" as an excuse for missing class, missing a deadline or submitting incomplete work. Points will be deducted under each of these circumstances.
- Use of Turning Point Clicker. This class will utilize the Turning Point Clicker system. Each student must purchase a clicker at the bookstore and bring it to class each day. The clicker will be used to track attendance/participation and assess student comprehension throughout the semester. Once a student purchases a clicker, it should work for all current and future classes utilizing the Turning Point Clicker system (i.e., you only need to buy one clicker). Once you purchase your clicker, you will need to electronically register it for use in this class, as well as any other classes which use the Turning Point Clicker system (directions will be provided).
- You must purchase a cardboard two-pocket folder for submission of all research papers.

<u>Course Description:</u> An introduction to the scientific field of research and data analysis that is required for working in any area of psychology. Topics include qualitative and quantitative experimental methods, selection of subjects, validity and ethical considerations, literature searches, and composing APA-style documents. This

course MUST be taken the semester immediately before PSY 212. Students must receive a passing grade in PSY 211 before going on to PSY 212. This course is for declared Psychology majors only.

<u>Course Objectives and Outcomes</u>: To provide an introduction into the scientific field of research and data analysis that is required for working in and exploring any area of psychology. At the completion of the course, students

- will be knowledgeable of the various types of research methodologies (both qualitative and quantitative)
- will be able to recognize what qualities a scientific topic must possess to be a true science
- will have the ability to design a valid and ethical research study, taking into consideration relevant subject and study factors
- will be familiar with paper and on-line procedures for conducting a proper literature review and composing APA-style documents
- will gain experience conducting mini-field research experiments

<u>Teaching Format</u>: The course will consist of lecture, discussion, in-class activities, and exercises to be completed outside of class. You should read the assigned material **before** coming to class, so that you can be an active participant and keep current with the material.

<u>Statement on Disability Accommodations</u>: Students with documented disabilities who may need academic accommodations should discuss these needs with me during the first two weeks of class. Students with disabilities who wish to request accommodations should contact the Academic Services Center. According to college policy, documentation must be provided to me before accommodations will be made.

Psychology Department Attendance Policy: The Psychology Department is committed to the principle that regular and punctual class attendance is essential to the students' optimum learning and successful academic achievement. Regular class attendance is a student obligation, and students are responsible for all work, tests and written assignments. Therefore, students are expected to be present for all class sessions. The Psychology Department's attendance policy recognizes that there will be times when attendance at class is not possible. You may think of the policy as being similar to the type used in the corporate world where each employee is given a certain number of "personal/sick days." Based on the number of regularly scheduled class meetings, you will be allowed a certain number of absences (see below) with no consequences, no questions asked. In other words, there is no distinction between excused and unexcused absences. You are of course responsible for anything covered during those missed classes, and for submitting assignments on time, regardless of whether or not you attend. Beyond the allowable number of absences, there are consequences that will adversely impact your grade, much as missing too many days of work can adversely impact your employment status. Above all else, you should carefully consider each decision to not attend class, as once your allotted absences have been used, they are gone. It is important that students arrive for class on time. Late arrivals are very distracting, not only to the instructor, but also to fellow students. Repeated late arrivals are not acceptable and will be addressed on an *individual basis.* It is each student's responsibility to understand this policy and to keep track of absences throughout the semester.

Application to this Class: Formal attendance will be taken during all class sessions. This class meets once per week (14 class meetings). As such, you may miss <u>2 classes</u> without penalty. If you miss <u>3</u> <u>classes</u>, your final grade (cumulative percentage of points) will be lowered by 5%. That means that if you have earned 84% of the available points in the class, which is a B grade, you would be lowered to 79%, which is a C+. Likewise, if you have earned 77% of the points available, the penalty would take you down to 72%, which is a C-. As a reminder, a C grade (73%) is required in all Psychology courses. If you miss <u>4 classes</u>, you will receive a failing grade for the course. If you miss four classes, you have missed approximately 25% of the class meetings.

Furthermore, you alone are responsible for all reading assignments and material covered in class, including activities, videos, handouts and announcements, regardless of whether or not you attend. We will cover a great deal of information over the course of the semester, and lectures will not always directly coincide with textbook materials. The majority of class time will be spent covering some of the more important concepts from the text, but often using different research or real life examples that will supplement the major issues discussed in the book. I have created PowerPoint handouts that serve as an outline for what I will cover in class on a chapterby-chapter basis. I will provide these outlines, in advance, so you may have an overview of what we will cover. The outlines will provide definitions and many details of research studies we discuss so that I do not have to spend the majority of class time repeating definitions—you will have them in the handout, leaving more time to listen, process, and elaborate. As a word of caution, the PowerPoints are incomplete in that they DO NOT contain everything; I want to see if you can anticipate research findings and contemplate answers to questions during class. This would be impossible if I provided the findings in advance. In other words, the PowerPoints should be treated as a starting point, NOT as "all you need to know." You should take notes during class time to add to what is contained in the PowerPoints, paying particular attention to examples used to illustrate the concepts that are covered. Based on my experience, students who simply rely on the PowerPoints will NOT do well in this class. From my experience, given the hands-on nature of research methodology and statistics, failure to attend even a single class can strongly hinder performance. It is up to you to obtain handouts, notes, or any materials that you have missed.

Recitation Session Attendance: Due to the he hands-on and applied nature of this course, a recitation session has been included. The sessions will serve to aid students in understanding the lecture material and will consist of any of the following: current material review, assistance with mini-experiments, and/or a question-and-answer period for homework assignments. The recitation will also provide structure to the lab component of the course and enable you to receive focused assistance on content that often warrants additional instruction for many students. Therefore, attendance at recitation (Approximately the last hour of each class) is required. Important: You ARE still responsible for material covered/discussed/worked on during recitation if you are absent.

Academic Honesty and Classroom Protocol: All Cedar Crest College students are expected to be familiar with and fully supportive of the college's policy regarding the honor code and academic integrity. See the Student Guide for more information regarding the enforcement of these policies. Appropriate classroom behavior is defined and guided by complete protection for the rights of all students and faculty to a courteous, respectful classroom environment. That environment is free from distractions such as late arrivals, early departures, inappropriate conversations, use of cell phones in any manner (TURN OFF UPON ARRIVAL), inappropriate use of computers in lab/recitation, and any other behaviors that might disrupt instruction and/or compromise students' access to their Cedar Crest College education. Engaging in these behaviors will result in points being deducted from your grade at the instructor's discretion.

Further, for any instances of dishonesty (e.g., cheating on tests, copying other students' homework, plagiarism, etc.), appropriate penalties will be applied, which will range from a zero on the assignment, to receiving an "F" in the course, depending on the severity of the offense. All instances of academic dishonesty, regardless of severity, will be reported to the Provost's Office to be included in the student's permanent file. Academic dishonesty generally consists of two categories of behavior:

- **Plagiarism:** Plagiarism is the act of presenting the ideas, words or other intellectual property of another as one's own. The use of other people's work must be properly acknowledged and referenced in all written material. The use of material without acknowledgement is an offense.
- Cheating: Copying another student's work, working together on an individual assignment, or using sources (notes, texts, internet, etc.) when none are allowed all constitute cheating. Bear in mind that allowing another to copy one's work is also an academic offense, as is submitting the same paper for two courses without arrangement.

Assessment: Altogether, there will be three (3) exams (See course schedule below), each worth 100 points. Each exam will cover materials from the text and lecture notes, as well as any handouts that you receive, and any videos viewed. Exams will consist of predominantly of multiple-choice questions designed to measure your knowledge, understanding, and application of textbook and lecture material; exams may include short answer/short essay questions as well. As a word of caution, the nature of exams is very applied. Simply reading chapters and taking notes will not guarantee a high grade in this course—you MUST be able to comprehend concepts and design issues and demonstrate your comprehension in a number of practical ways. Further, issues in research methodology and statistics early in the semester will serve as building blocks for concepts covered later in the semester and next; in other words, material in PSY 211 and PSY 212 is cumulative in nature, and to an extent, so will be the exams (I will have more to say when the exams are approaching). The third exam will be given during Final Exam Week, according to the College-wide schedule which is/will be available on the Registrar's Homepage. Exams must be taken during the scheduled time period. Make-up exams will be given ONLY with documentation of an excused absence (i.e., sickness, college-sponsored event, legal situation)—there will be NO EXCEPTIONS. Advanced notice should be given whenever feasible. Documentation must be presented and the make-up exam scheduled as soon as possible.

Homework and Class Participation: Homework and class participation will be factored into your grade in this class. Specifically, there will be several activities that we do in class (demonstrations, review questions utilizing Clickers, etc.), and if you are present when they are completed, you will earn credit; if you are absent, you forfeit those points unless you have written documentation of an excused absence (same criteria as above), in which case you may be given an alternative assignment. Some activities involve group work; these assignments, because of their interactive nature, may not be made up. In addition, periodically, you will be asked to complete take-home assignments (i.e., homework). These assignments may be self-assessments, brief reflective essays, or internet research activities (look something up, find a webpage, etc.). As with in-class assignments, you alone are responsible for finding out what assignments if any were missed when class is missed, and you are responsible for submitting assignments on time; only students with documented excused absences will be permitted to submit late work. The value of each assignment will vary. Each clicker question will be worth one unit, while in-class and take-home assignments may be worth two to five units. Altogether, your Homework and Class Participation will be worth up to a maximum of 75 points, and your score will be based on the percentage of units you earn (i.e, if there are 40 units available, and you earn all 40 units, or 100%, your homework grade will be 75 points). There will most likely be more than 40 units available during the semester. NOTE: It is absolutely important that you register your clicker and bring it to each and every class session; if you do not have your clicker (or it is not registered correctly) when a clicker question is asked, you will not get those class participation points.

Experiment Write-ups: You will be expected to complete two (2) partial experiment write-ups during the course of the semester. These write-ups will be based on experiments we conduct together, in class. Specific details regarding these assignments will be made available at the appropriate time. The first write-up will be worth 25 points, and the second will be worth 50 points (75 Points Total).

IMPORTANT: All assignments completed outside of class, regardless of point value, unless explicitly approved otherwise, are to be worked on independently. Collaboration of any kind will constitute a violation of the Honor Code and will be reported to the Provost's Office.

Extra Credit: There will be several opportunities to earn extra credit in this class. The majority of points will be available by completing assignments of varying length and value (specific details will be made available as opportunities are offered). However, you may volunteer to serve as a research participant on campus <u>at any time</u> during the semester and earn extra credit, provided you submit proper documentation of your participation. A Research Subject Pool Bulletin Board is located in the basement of Curtis Hall, adjacent to the Psychology Department main office. Check this board periodically for research participation opportunities. You will be given one point for each study you complete. This participation is a valuable service to the department and to our discipline. First, it benefits you in that you see first hand how psychological research is done (especially as

students enrolled in PSY 211/212). Second, it allows our upper-class students and faculty a means of studying topics of interest and may ultimately lead to publications and conference presentations, the very way the scientific discipline of psychology advances. The number of opportunities for research participation varies from semester to semester, and my advice is to take advantage of opportunities as they arise. In any case, you may complete up to a **maximum of 5 points in extra credit** (**NOTE: exam points; NOT percentage points**), regardless of how those points are earned.

<u>Grading</u>: Your final grade will be assigned on the basis of the percentage of points you earn out of a possible 475 points (three exams, lab, and extra credit):

	Exams Experiment write-ups Homework/Participation Total		300 points 75 points 75 points 450 points		
A A- B+ B C+	93- 100% 90- 92% 87- 89% 83- 86% 80- 82% 77- 79%	C C- D+ D F	73- 76% 70- 72% 67- 69% 60- 66% below 60%		Note : In order for this course to count for the Psychology major or minor, you must earn a grade of C or better in this course (The grade of C- will not satisfy this requirement).

Strive to do well!! The wisdom of the ages in academia (faculty and academic advisors agree) is that in order for students to do well in college, they should study outside of class approximately 2 hours for every hour of class time. In other words, for a class like ours that meets for three hours per week, you should be studying roughly 6 hours outside of class, per week—just for this class. However, please keep in kind that this is a lab class worth four credits, and so the expectation for work outside of class is higher. This class is very applied in nature; each of you must determine how much time is necessary to grasp the concepts covered and complete the assignments. My advice is to stay ahead with your readings and do not wait until the last minute to complete assignments. Above all else, know that I am available to assist you. As a former colleague often said, "it is the student's job to learn, and the faculty's job to help them do it!"

Fall 2008 Exam Schedule (Approximate Coverage): Changes in this schedule may be necessary, and you will be notified in advance when these situations arise.

Date	Material to be Discussed	Assignments
8/27	Syllabus & Chapter 1: Introduction to the Scientific Method	
9/3	Chapter 1: Introduction to the Scientific Method Chapter 2: Ethics in Research	
9/10	Chapter 2: Ethics in Research	Literature Search Exercise Due
9/17	Chapter 3: The Research Process Chapter 4: The Role of Statistics in Research (pp. 53 - 60)	Ethical Dilemmas Exercise Due
9/24	Chapter 3: The Research Process Chapter 4: The Role of Statistics in Research (pp. 53 - 60)	Operational Definitions Exercise Due
10/1	EXAM #1 (Chapters 1 – 4)	
10/8	Chapter 5: Introduction to Experimentation and the Between-Groups Design Chapter 4: The Role of Statistics in Research (pp. 62 - 65)	
10/15	Chapter 6: The Within-Subjects Design Chapter 4: The Role of Statistics in Research (pp. 62 - 65)	
10/22	Chapter 7: Factorial Designs Chapter 4: The Role of Statistics in Research (pp. 62 - 65)	
10/29	Chapter 7: Factorial Designs Chapter 4: The Role of Statistics in Research (pp. 62 - 65)	Experiment Write-up #1 Due (25 pts.)
11/5	EXAM #2 (Chapters 4 – 7)	
11/12	Chapter 8: Using Natural Settings: Observational Studies and Field Experiments Chapter 9: Mail Surveys, Telephone Surveys, and Personal Interviews Chapter 4: The Role of Statistics in Research (pp. 60 - 62)	
11/19	Chapter 10: Quasi-Experimental Designs Chapter 4: The Role of Statistics in Research (pp. 62 - 65)	Experiment Write-up #2 Due (50 pts.)
11/26	THANKSGIVING BREAK—NO CLASS	
12/3	Chapter 11: Single-Subject Designs	
EXAM WEEK 12/10	EXAM #3 (Chapters 8 - 11) NOTE: 6:30 – 9:00	

NOTE: Fall Break, Thanksgiving Break and Final's week are scheduled by the college and will be adhered to. You are responsible for anything covered, assigned or due on dates preceding or following breaks. The 3rd exam must be taken at the time arranged by the Registrar's Office according to the official Final's Week Schedule.