PSYC 2103 – Research Methods II – Fall 2011

Tell me and I'll forget. Show me, and I may not remember. Involve me, and I'll understand.
-Native American saying

As a group, scientists are motivated by the positive aspects associated with seeking out new knowledge about the way the world works. However, while scientists view research methodology as providing the means for an exciting and fruitful journey of discovery, students typically see research methodology as boring, useless, and confusing. I see two basic reasons for this lack of enthusiasm. First, the skills needed to design a study, analyze and interpret the data, and to report the results take practice and perseverance to learn. Second, many students do not see themselves becoming research scientists and fail to understand that the same skills needed by the scientist are increasingly required in the American workplace. The critical thinking, computer, and communication skills required to collect, analyze and communicate evidence related to questions of importance to the company one works for are becoming increasingly prized by employers. My hope is that students in this course will come to understand that the skills we will practice in this course are important for any educated person in our society to have, and that much of the learning in this course will come by practicing these skills. This course is the third in a research methods sequence for Psychology majors that involves traditional "book" learning of (a) the scientific method, and (b) basic research and statistical methods, followed by a lab course to provide training in applying this knowledge. As with any applied endeavor success will depend upon being willing to roll one's sleeves up and apply some "elbow grease," as well as a positive outlook. I have no delusion that all students will feel inspired by this course, but I do hope that by learning through direct participation most of you will develop valuable skills as well as an appreciation of the importance of thinking like a scientist. It is my hope that by experiencing the difficulties of collecting and evaluating evidence regarding an important question or issue, students will come to value the scientific approach to solving problems that face society (e.g., the question of global climate change).

Science is the worst method for learning how the world works, except for all the others.

-M. Faust, after Winston Churchill's statement about Democracy as a form of government

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Office Hours: MW 11:00 am-12:30 pm, T 12:30 pm – 2:00 pm

Open Door Policy: Dropping by during normal business hours *encouraged*!

49er Express: All course-related documents (e.g., course notes, review sheets, & assignments) and student grades will be

posted on Moodle pages in 49er Express. All students are expected to have access to 49er Express. See

49er webpage if you have problems: https://secure.uncc.edu/express/

Required Text: Research Methods in Psychology 2st Ed., by W. Schweigert

Important Note: Students may use their text from PSYC 2101 Research Methods I. Most research methods texts for the

typical methods course required of psychology majors should work well. The text I have chosen is compact, relatively cheap (paperback edition), and has nice reviews of basic research design issues as

well as basic statistical analysis and a solid chapter on writing in APA style.

Lecture: MW 12:30 pm – 1:15 pm, 5096 Colvard

Labs: This is a lab-based course. Direct experience in labs is critical for learning and your grade

will depend upon regular attendance. Attendance in labs is also required for this course to run smoothly for others in the course. Lab activities are intended to demonstrate concepts and work better with more students. Most lab activities culminate in a written assignment. Often this will be a lab report written during the lab meeting, but several labs will involve writing up results of the lab activities, often in a full APA-style writing assignment. This course is a writing intensive

"W" course, so be prepared to write.

Prerequisites: PSYC 1101 General Psychology, STAT 1222 Introduction to Statistics, & PSYC 2101 Research

Methods I. You need <u>ALL</u> of the prerequisites to take this course!!!

Goals: Students should master the following skills.

- 1) Generating testable hypotheses from theoretical perspectives
- 2) Designing and conducting research studies
- 3) Interpreting and presenting results of research studies
- 4) Thinking critically about research, including claims presented in the popular media
- **5**) Writing APA-style research reports
- **6**) Use of computer application software to (a) search the scientific literature and Internet, (b) statistically analyze data, (c) create scientific tables and graphs, and (d) write research reports

Overview: This course will provide students with a chance to apply knowledge of statistics and research methods acquired in previous lecture-based courses. Students will model portions of different research designs in common lab assignments done by all, and in a term research project of their own design. The application of methodological design and statistical analysis through active participation in discussion of concepts and hands-on research assignments will be emphasized. Labs are structured around exercises intended to simulate various aspects of the scientific process of designing, conducting, and evaluating psychological research (e.g., generating hypotheses, gathering & analyzing data, and interpreting results). Another important component of this course is the development of scientific writing skills. Students will complete various writing and interpretive assignments designed to familiarize students with formal APA (American Psychological Association) style research reports. Finally, this course will give students a chance to gain important computer skills by learning to use computer applications to design behavioral studies, gather behavioral responses, analyze data, and report the results.

Approx. Grading:	Writing Assignments (3-4 x 25 pts each)	75-100 pts
	Labs (14-15 x 10 pts each, drop lowest 2 grades)	120-130
	Term Project Proposal (10 pts)	10
	Term Project Materials & Methods (20 pts)	20
	Mastery Quizes (2-3 20 pts each)	40-60
	Term Project Paper (70 pts)	70
	Total:	295-360

Notes on Grades:

- (A) Final grade based on percent total points earned. 90%(A), 80%(B), 70%(C), 60%(D), are guaranteed <u>maximum</u> criteria. Criteria may be shifted down if distribution of total scores warrants.
- **(B)** Some Lab Reports can be made up if a student misses the lab. However some lab reports are brief quizzes related to in-class activities and cannot be made up.
- (C) There are no traditional exams, and no traditional final examination. However, there may be a couple of pop quizzes early in the semester covering review material from PSYC 2101 Research Methods I.
- (**D**) Late assignments will be penalized 10% initially, and 20% once papers (or answer key) are handed back.
- (E) While there is no explicit attendance requirement for this course, regular attendance critical. Missing more than 3 class meetings will significantly affect your course grade. Do not take this course if you cannot attend regularly.
- **(F)** The instructor reserves the right to add participation points and points for attendance should such measures become necessary to assure regular full attendance.

Academic Integrity: UNCC's code of Student Academic Integrity will be followed and enforced in this course. In particular, the following conduct is prohibited: cheating, fabrication and falsification, multiple submissions, plagiarism, abuse of academic materials, and complicity in academic dishonesty. A fuller description of this code can be obtained in the catalogue online and complete text of it can be obtained from the Office of the Dean of Students. Violation of the code will result in failure for that activity, possible failure of the course, and possible reporting to Department Chair and Dean. Please see the instructor if you have any questions regarding what constitutes academic dishonesty.

Tentative Schedule:

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Week Date		<u>te</u>	Topic(s)	<u>Lab</u>	Assignment Due	
1	Aug.	22 24	Introduction Descriptive Statistics Review		Report 1	
2		29 31	Descriptive Statistics Review	Descriptive Statistics: Anxiety	Report 2, HW1	
3	Sept.	5 7	Labor Day—No Class Inferential Statistics Review			
4		12 14	Simple 2-Group Experiment	Political Opinion Scale	Report 3	
5		19 21	Correlation & Regression Review	2-Group Experiment: Eyeglasses	Report 4, HW2	
6		26 27	Ethics	Storks & Babies Online Tutorials	Report 5 Report 6	
7	Oct.	3 5	Project Development, Mastery Quiz Review IRB Tutorial Certificate Mastery Quiz: Descriptive & Inferential Statistics, 2 Group Expt., & Correlation/Regression			
8		10 12	Fall Recess—No Class Simple Expt 2: Repeated Measures			
9		17 19	APA Research Report, Multi-Level Exp	2-Condition Repeated Measures Expt. ts.	Report 7, Project Idea	
10		24 26	Multi-Level Experiments Factorial Experiments		HW3	
11	Nov.	31 2		Lab 8: Multi-Level Text Memory Lab 9: 2x2 Experiment	Report 8	
12		7 9	More Finding Psychological Measures	Lab 10: SPSS Mastery-Survey Analysis	Report 9, Project Method Report 10	
13		14 16	Materials & Design, Consult w/Instructo	Practical Mastery Quiz or	HW4, Mastery Quiz	
14		21 23	Materials & Design, Consult w/Instructor Thanksgiving Break—No Class	or		
15		28 30	Data Collection Data Collection			
16	Dec.	5 7	Data Analysis & Writing Consultation <i>Course Evaluation</i> , Data Analysis & W	riting Consultation	Mastery Quiz (20 pts)	
Fina	ıls	5-12	Final Exam Period (Wednesday, Decen	nber 14 th , 11:00-1:30 pm, Term Papers Due)		

NOTE: **(A)** Unforeseen circumstances may necessitate changes to course policies and schedule of topics. Ample notice will be given for any changes. **(B)** If you have a specific disability that qualifies you for academic accommodation, please notify the instructor and provide certification from the Office of Disability Services, 237 Fretwell, 704-687-4355, www.uncc.edu/dability/.