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Course description: This course is an introduction to the principles and methods underlying psychological research. This course will be taught from two perspectives. First, it is important for psychology majors to know how to be *producers* of good research as some of you will go on to graduate training and will need to know how to design, execute, and evaluate scientific techniques. On the other hand, not all psychology majors become researchers. Nevertheless, each of you is bombarded with claims based on scientific research—*vaccinations cause autism, exercise can prevent dementia, cell phones cause brain cancer, colors affect mood*—and you need to be able to judge the veracity of such claims. As *consumers* of research, an understanding of experimental psychology will help you make better decisions, avoid bias and error, and ask good questions.

A primary goal of the course is to provide you with the knowledge to both *conduct* and *critically evaluate* research in psychology and related fields. Experimental methods are emphasized although non-experimental techniques (e.g., surveys, correlation) are also covered. Specific topics include the scientific method, research designs, hypothesis development, measurement, reliability & validity, experimental control, between- vs. within-subjects designs, factorial designs & interactions, common statistical techniques (e.g., t-tests, ANOVA), and issues related to the interpretation and reporting of research findings. In addition to lectures and discussions, this course involves a substantial laboratory component. Lab activities include working with Excel and one or more statistical packages, demonstrations and exercises designed to illustrate psychological and methodological principles, and direct experience collecting, analyzing, interpreting, and reporting data.

This course also satisfies several University Studies learning goals. The information literacy (IL) goals are to help students: (1) develop an effective strategy to search for, identify, and retrieve information in order to fully address an information need; (2) analyze information in order to evaluate its currency, authority, accuracy, relevance, and purpose; (3) synthesize and appropriately cite retrieved information in order to ensure information is utilized ethically and legally; and (4) create a finished product (e.g. paper, presentation, data analysis, video, etc.) using retrieved information and reflect on the iterative processes used to find, evaluate, synthesize, and ethically and legally utilize information. The main writing intensive (WI) goals are to help students: (1) Demonstrate an ability to produce written texts that reflect a knowledge and understanding of disciplinary conventions in terms of audience expectations, genre conventions, and/or citation practices; (2) Demonstrate the ability to employ an iterative writing process that includes invention, drafting, and revision in response to instructor feedback to complete a major writing project or series of written assignments.

To achieve these goals, PSY355 students will: (1) locate, critically evaluate, integrate, and cite primary empirical journal articles relevant to a research topic (IL1; IL2; IL3); (2) write summaries and literature reviews to critically evaluate empirical methods and findings, and identify limitations of, of previous studies (IL2, IL4, WI1); (3) revise and improve written summaries based upon instructor feedback (WI2); (4) write a full research paper in APA format, including an abstract, literature review, method, results, & references section. This paper includes drafts and revisions per feedback. (IL4, WI1, WI2); and (5) write individual sections of the full APA paper as assignments throughout the semester, which will be given feedback to allow for revision on the final product (the full APA paper). (IL4, WI2)

Prerequisite: To take this course, you must have first passed PSY225-*Introductory Statistics for the Behavioral Sciences*. If you have not completed PSY225, please see me!

Textbook and Readings: The required textbook for this course is *Research Methods in Psychology, 2nd Edition* by Beth Morling. You may also be required to read excerpts from other texts and papers from the primary psychological literature. Questions about these readings will be on the exams. I *strongly* encourage you to read all assigned material prior to the class in which it is discussed. Doing so will not only make the class more interesting but will also significantly increase your understanding and retention of the material.

Grading: Final grades will be based on a total of 400 points: 200 from 4 exams, 100 from 10 in-class assignments, 30 from an initial research report, 50 from a second research report, and 20 from a team presentation. Each requirement is described in detail below. Grades will be assigned on a 10-point scale [A =90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = < 60%] with minuses appended to scores ending in 0, 1, or 2 and pluses appended to scores ending in 7, 8, or 9 (except for the grade of A for which there is no plus).

Class Activity	Description	Points
Exams	4 exams @ 50 pts each	200 points (50% of grade)
Lab Assignments	10 assignments @ 10 pts each	100 points (25 %)
Report 1	1 report @ 30 pts	30 points (7.5%)
Report 2	1 report @ 50 pts	50 points (12.5%)
Final Presentation	1 group presentation @ 20 pts	20 points (5%)
Total		400 points

Exams: There will be **4 exams, each worth 50 points**. Three exams will occur during the semester; a fourth exam will occur during the final-exam period. *All exams will be comprehensive but will emphasize recently covered material.* Exams may contain a variety of testing formats (e.g., defining terms, true/false, etc.) but will primarily consist of multiple-choice and short-answer questions. Make-up exams will be given only when a scheduled exam is missed due to a serious, unavoidable emergency (e.g., an acute health condition). If this happens, I will request documentation of the emergency.

Lab Assignments: There will be **10 class assignments, each worth 10 points**. These assignments are designed to give you hands-on experience with some of the course concepts and to give you the skills required for your final research project. It is strongly encouraged that you complete and submit all assignments during class time; however, unless otherwise noted on the assignment, they should be **emailed to the TA by Monday at 11:59pm**. Lab assignments turned in 1 to 2 days late will be awarded 50% of the earned points and will not be accepted beyond 2 late days.

Research Reports and Team Presentation: A fundamental component of scientific psychology is designing, conducting, and reporting empirical research. To give you first-hand experience in this process, all students will be required to write two full research reports. **The first report will be worth up to 30 points** and will be based on research conducted as a class. The second research report will be based on a team experiment (in teams of 3 or 4 students) where teams will design an experiment, collect and analyze their own data, and report on that experiment in two ways—as an individually-written research report (in APA format) and as a team-based presentation to the class. **The second research report will be worth up to 50 points and the presentation will be worth up to 20 points.** Note that, for the presentation, all team members will be given the same number of points unless one or more team members fail to make a notable contribution to the group project or presentation; in those cases, I will assign points individually to each team member. All reports should be emailed to me (at danielsk@uncw.edu) by the deadline. Reports turned in 1 to 2 days late will be awarded 50% of the earned points and will not be accepted beyond 2 late days.

Attendance & Participation: This is a lab-based, "hands on" course and an important part of it involves participation in lab activities and demonstrations. I also administer unannounced extra-credit quizzes and assignments in class with only to those in attendance receiving points. Thus, although I will not formally take attendance, **you should treat attendance in this course as mandatory**. Participation in the course is also encouraged, either by asking questions or contributing to class discussions. Although such discussion is not required, it is strongly recommended and can influence your grade. *Please attend all classes and participate!*

Classroom Conduct: As a courtesy to me and your classmates, please turn off all phones and other electronic devices during lectures and labs (and especially during exams) and do not use computers to conduct non-PSY355 activities during lectures or labs.

Working with Other Students: Studying and exchanging *ideas* with other students is a great way to learn, one that I enthusiastically encourage. However, sharing *work* with other students when it is prohibited is cheating. If I suspect this is happening, I will report it to the appropriate university officials.

Academic Honesty: The academic honesty policy of UNCW will be strictly followed in this course. Please consult the Undergraduate Catalogue or Student Handbook for specifics about this policy. In brief, neither cheating nor plagiarism will be tolerated in this course. **Cheating includes (a) using outside resources when taking an exam; (b) having someone complete an assignment for you; and (c) having someone help you write your final paper or using a paper from another class or individual.**

Plagiarism is a form of academic dishonesty in which you take someone else's ideas and represent them as your own. Examples include writing about someone else's work and not giving them credit, getting facts from a textbook or some other reference material and not referencing that material, or using someone else's writing (6 or more consecutive words) and not putting that writing in quotation marks and/or noting its source. Specific student infractions that I have previously encountered include (a) copying sentences or phrases directly from a source, even when you cite the source, without quotation marks; (b) using the same sentence structure as the original source and changing a few words; and (c) combining phrases in the original source to create a new sentence. **Plagiarism is a serious ethical violation and can result in you receiving an F for this course. Note that all assignments will be submitted to plagiarism software. Please do not plagiarize!**

Campus Violence and Harassment: UNCW practices a zero-tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273, Campus Police at 962-2222, or Wilmington Police at 911. For University or community resources visit <http://uncw.edu/wsrc/crisis.html>

Learning Center: The Learning Center provides writing services with free one-on-one consultations for all students for any academic writing purpose. Consultations are led by faculty-recommended and trained peer tutors or professional tutors that help students identify areas to improve and develop specific revision plans. Students taking PSY355 might find this service useful for helping to produce a strong final paper or to simply improve your writing skills before you graduate. You can get more information at 962-7857 or <http://www.uncw.edu/ulc/writing/index.html>

Final Note: My main goal is to help you succeed in PSY355. In addition to teaching you the concepts and theories relevant to Experimental Psychology, I want you to leave this course with the skills necessary to think critically about information you encounter in your daily lives and to communicate your ideas effectively. These skills will be an asset to you in whatever career path you choose. Most of you will find this course challenging – psychological research *is* challenging. However, I hope you will also find the experience interesting and rewarding. Please feel free to contact me with any questions, concerns, or suggestions that will help you get the most out of this course. I'm looking forward to this semester – I hope you are as well!

Critical dates

Jan. 8	PSY355-002 begins.
Jan. 15	MLK Day (no lecture)
Jan. 16	Last day to drop without a grade
Feb. 7	EXAM 1
Feb. 23	Last day to drop without penalty/withdraw ("W")
Mar. 5 & 7	Spring Break (no lectures)
Mar. 9	Spring Break (no lab)
Mar. 14	EXAM 2
Mar. 16	Report 1 due electronically (danielsk@uncw.edu) by 11:59pm
Mar. 30	Easter Break (no lab)
Apr. 4 & 6	Data Collection Days for Report 2
Apr. 9	EXAM 3
Apr 23 & 25	Student Presentations
Apr. 25	Last day of PSY355
Apr. 27	Report 2 due electronically (danielsk@uncw.edu) by 11:59pm
May 2 @ 11:30 am	FINAL EXAM

Class Schedule (all dates & topics subject to change)

	Lectures					Labs	
		Monday		Wednesday	Reading		Friday
Week 1	Jan 8	First day of PSY355: Orientation to Course	10	Scientific Thinking: Forming Hypotheses	Ch. 1	12	1: Orientation to Lab; Survey & Student Info
Week 2	15	MLK Day (no class)	17	Scientific Thinking: Application & Publication		19	2: <u>Hypotheses</u> & Application Exercise
Week 3	22	Research vs. Experience & Intuition	24	Research vs. Experience & Intuition	Ch. 2	26	3: Pseudoscience & Basic Excel
Week 4	29	Scientific Writing	31	Scientific Writing		Feb 2	4: Finding Research & Writing <u>Introductions</u>
Week 5	5	Making Claims	7	Exam 1	Ch. 3	9	5: <u>Methods</u> Exercise
Week 6	12	Measurement	14	Measurement	Ch. 5	16	6: <u>Measurement Scales</u> & Basic Stats
Week 7	19	Non-Experimental Methods	21	Non-Experimental Methods	Ch. 6	23	7: <u>Survey</u> Creation
Week 8	26	Correlations	28	Correlations	Ch. 8	Mar 2	8: Vassar Stats & <u>Correlations</u>
Week 9	5	Spring Break (no class)	7	Spring Break (no class)		9	Spring Break (no lab)
Week 10	12	Work Period: Report 1	14	Exam 2	Ch. 10	16	Work Period: Report 1
Week 11	19	Experimental Research: Basics	21	Experimental Research: Designs & Threats <i>Report 1 due by 11:59pm</i>	Ch. 11	23	9: Design Your Expt
Week 12	26	Factorial Designs	28	Factorial Designs	Ch.12	30	Easter Break
Week 13	Apr 2	Work Period: Report 2	4	Report 2 Data Collection		6	Report 2 Data Collection
Week 14	9	Exam 3	11	Work Period: Report 2	Ch. 13	13	10: Conducting ANOVAs
Week 15	16	Quasi-Experimental & Small-N Designs	18	Research Ethics	Ch. 4	20	Work Period: Report 2
Week 16	23	Student Presentations	25	Student Presentations		27	Report 2 due by 11:59pm
Week 17			May 2	FINAL EXAM at 11:30am			