

# Experimental Methods

## PSY 310, Spring 2015, CRN#22484



**INSTRUCTOR: Dr. Michael C. Hout**

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Office hours: Mondays and Tuesdays, 10-11:15 am (or by appointment)

Classroom: Science Hall, room 106; MW, 1:30 – 2:20 pm

**LABORATORY INSTRUCTOR: Carrie Melia**

Email address: [cam21@nmsu.edu](mailto:cam21@nmsu.edu)

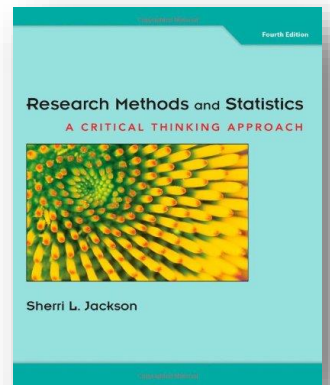
Office: Science Hall, 310

Office hours: To be announced on Canvas

**Please review this syllabus and Canvas before you send an email!** Most of your questions can be answered using this document.

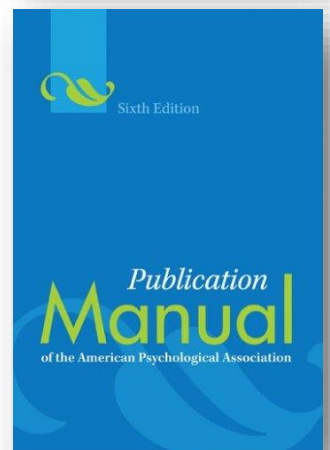
### COURSE MATERIALS:

**1a) Textbook (required):** “Research Methods and Statistics: A Critical Thinking Approach” by Sherri L. Jackson (4<sup>th</sup> Edition). I may periodically assign research articles or other readings, which will all be posted on Canvas (freely).



**1b) Handbook (recommended):** Publication Manual of the American Psychological Association, 6<sup>th</sup> Edition.

**2) Canvas:** Everything you need to know about this course can be found on Canvas at <https://learn.nmsu.edu>. This includes the syllabus, grades, readings, and all other course material. I will also post announcements occasionally. Content on the Canvas site will be updated constantly as we progress through the course. It is your responsibility to check Canvas on a regular basis! That means once per day (preferably in the morning, especially on days when you have class).



**3) Study Resources:** I very strongly encourage you to make friends in this course. Other students can often be helpful study partners, and can provide you with notes in case you need to miss class. I will NOT repeat lectures for you if you are absent, so you must acquire notes from another student if you are to miss class. If you encounter any difficulties keeping up with the course content, come to meet with me sooner (rather than later). I'm happy to help out, but be prepared to meet with me, and leave adequate time before the next exam, end of semester, etc.

**4) Pre-requisites:** For this course, you need to have taken STAT 251G, STAT 271G, or A ST 311. If you have not taken one of these courses (and passed it successfully) then you will be at a disadvantage in my class.

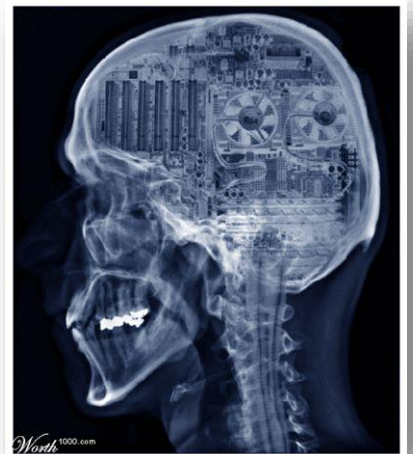
### **COURSE GOALS:**

This course is designed to provide you with an introduction to the methods that are used to conduct scientific research. Its primary goals are to: (1) teach you the basics of designing, conducting, and communicating psychological research; (2) encourage you to become a critical consumer of basic and applied research; (3) provide you with hands-on research experience; and (4) teach you the basics of using information technology to conduct research and to interpret and present research results. Although the emphasis will be on the application of methodological principles to research problems in various areas of psychology (e.g., cognitive psychology), we will also consider the implications of methodological principles for “real world” research issues.

### **COURSE FORMAT:**

**Lecture:** This course will largely be composed of traditional lectures, but I will also include many hands-on demonstrations. That means you will often participate in mock experiments during class, for demonstrative purposes. Please make sure to participate! Attendance is encouraged, but is not mandatory. Skip class at your own risk.

**Labs:** It is very important that you attend the laboratory section for which you are registered. Attendance is mandatory, as the labs are an important part of your educational experience. They are designed to give you hands-on experience so that the content of the lectures will be more concrete. Your lab grade will constitute 40% of your overall grade in this course.



## **SOME NOTES ON THE LECTURES & READINGS:**

Prior to each class, I will post my lecture slides online. I will do my best to have them posted 12 hours or more before the start of class, but sometimes that may not be possible. I strongly encourage you to either print these out prior to class (or, more preferably, to download them to an electronic source and save the paper). All slides will be made permanently available on Canvas.



The best strategy for success in this class is to simply relax and absorb the material as we discuss it. Take some notes here and there, but don't worry about copying down everything I say. Simply take down notes anywhere you think that the slides themselves would be inadequate to refresh your memory.

Coming to class is critically important. It is NOT sufficient to simply look over my slides after the fact. You need to be around to hear me discuss the topics. I cannot stress this enough.

Importantly, if you miss a class, you must get the notes from another student; I will not repeat lectures individually! Never. Not for any reason. Don't even ask. I won't give study guides either. Never. Not for any reason. Don't even ask. You will have all my slides, so a study guide would be superfluous. The exams will be entirely based on what I cover in lecture (plus the readings!).

You can, if you choose, use a tablet or laptop computer to take notes. This will save trees, but don't abuse this privilege. It's obvious when people are screwing around on their computers. I can hear you typing more furiously than you would to take notes, I can see Facebook reflected on your glasses, and it's entirely evident when someone is paying more attention to their screen than they are to me. Don't do that. I will call you out on it, I assure you. If you can't pull yourself away from social media for an hour, I encourage you to stay home and do it in bed, in your PJs. That'd be way more fun for both of us.

**One final note: reproducing my slides on any note-hosting website constitutes (a) copyright infringement and (b) a violation of the student code of conduct. If I find out my slides are reproduced, shared, or copied, I will take full legal action on the student in question. Please don't make me do this!**

## **GRADING POLICIES:**

Everyone should get an A or B (or at least a C) in this course, hopefully. I'd be happy if everyone got an A. Truly. That'd be super cool. If you come to class regularly,

participate, pay attention, and study a little, there is no reason you should not get a decent grade. I have no interest in failing students, or intentionally making this class difficult. I'd rather it be fun, and that you... you know, learn something.

**Exams:** Your grade in this course will be based on four exams, each worth 25% of your grade. You will be responsible for all material covered in lecture, and all assigned material, including readings not discussed in class. Exams will be entirely multiple choice format. Exams will not be cumulative, with the exception of the optional final (more on this below).

If for any reason you cannot attend class the day of an exam, you must contact me at least 24 hours before class to schedule a make-up exam. I will not require any form of documentation, but please note that the make-up may be significantly more difficult than the standard exam and must be taken within 1 week of the original exam date. Failure to inform me 24 hours in advance or failure to take the exam within 1 week of the scheduled date will result in a grade of zero. This is non-negotiable.

If the situation arises wherein you receive a zero on an exam, you are not entirely out of luck. There will not be an official final in this course, but I will allow students to take an optional cumulative final exam (similar to the other exams, but longer) during the official scheduled time (see calendar, below). If you decide to take this exam, you do so at your own personal risk or reward. This exam may be used to replace a zero, or to replace your lowest exam score (reward!). However, if you score lower on the final than your lowest exam score, the grade you receive on the final will replace it (risk!). This may be harsh, but it is designed to encourage you to make it to every exam, and to do well on the first four (and save yourself the hassle of a cumulative final!).

**Curves:** For each exam, I will curve each student's score in the following way. I will take the mean (average) of the top 5% (treating that value as the perfect-score mark), and adjust all other scores accordingly. For instance, if there were 100 students, I would calculate the average for the 5 students who scored the best. Say that average came out to be 95%. I would then bump every student's score up by 5% ( $95\% + 5\% = 100\%$ ). That way, if an exam is particularly difficult for the entire class, grades will be adjusted accordingly. It also means that the top 2.5% may receive a score over 100% on any particular exam. This is a generous policy, but in practice, it often does little to change people's scores. The reason for this is that there are often several students who score 100% on my exams. The closer that top 5% gets to a perfect score, the smaller the curve. So don't rely on the curve to bump up your grade!

**Attendance, participation, & extra credit:** You're all adults, so you can choose whether or not you want to come to class. It makes no difference to me. However, please

be aware that 1) exams are based largely on material covered in lecture, 2) lecture slides do not provide 100% of the information that was covered in class, and 3) I will not repeat lectures for individual students. It is thus in your best interest to attend class regularly, to pay attention, and to make friends that will provide notes in the event you have to miss class.

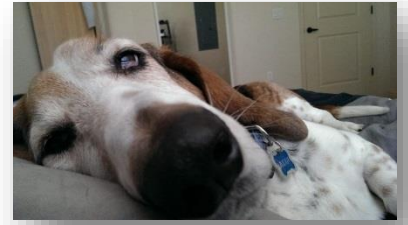
Because this is a relatively small class, I'd like it to be highly interactive. You will be strongly encouraged to participate in discussions, and may occasionally be called upon to answer questions. Especially if you sit in the back of the room and try to hide from me. I'll find you. And I'll call on you when you're busy texting your BFF. And then you'll feel silly.

On that note, turn your phones off, or on silent. Do not check your phone during class. You're in class. You're an adult. You pay for this course. So behave accordingly.

There will be some opportunities for extra credit which are not-so-subtly designed to encourage class attendance and participation. However, they will come in one form, and one form only. On randomly distributed days throughout the semester, I will administer pop-quizzes or small-scale exercises. On pop-quiz days, you'll receive a single question to which you will write a short answer. Correct answers will earn you 2 points on the forthcoming exam; incorrect answers will still earn you 1 point (so long as you at least attempt to answer the question). You will also receive 1 point if you can make me laugh. For real. You will not have an opportunity to earn these points if you don't attend class! On exercise days, you'll receive 2 points just for indulging me (usually in the form of some informal experiment). Please note, that this is the only opportunity you have for extra credit. Do not ask for additional opportunities, and do not try and bargain with me for a "re-do". If you ask once about more extra credit (even once!), I will remove every extra credit point you have earned for the entire semester.

**A comment on scholarships, graduation and the like:** Very often, students come to me and tell me that if they do not receive a certain grade in my course, they are going to lose their scholarship, or they won't graduate, or they will become ineligible for something or other. Let me be clear: I can relate. I understand how hard it is to succeed in education, to pay for school, etc. I in no way wish for anything bad to happen to anyone as a result of failing my course. But it is your responsibility to get a good grade in my course; it is not my responsibility to give you a good grade. You must earn it. Do NOT ever tell me about these types of concerns. Please. It puts an unfair pressure on me as an instructor, whether it is done intentionally or not. I will never assign a student a grade that s/he did not earn, so please do not come to me saying "I need a grade bump or I will lose my scholarship". It

would be completely unfair to the rest of the class to grant anyone a grade they did not earn. Besides, many of your fellow classmates also have scholarships, graduation concerns, etc. Please keep that in mind.



You may see this policy as cold. I see it as being fair to everyone in the course. If you are worried about something like this and need to drop the course, come to see me early, and we can discuss options for withdrawal, figure out if it is possible for you to pass the course (given your current scores), etc. In this regard, my door is always open. Just do not pressure me to give you a better grade.

**Grade calculation:** Each exam is worth 25% of your grade. Any extra credit points you earned during a given section will be added to that exam score, and that one alone. If you take the optional cumulative final, it will replace the lowest of your other 4 exam scores.

Final letter grades are assigned as follows:

Percentage	Letter Grade
> 97.6%	A+
92.6 – 97.5%	A
89.6 – 92.5%	A-
87.6 – 89.5%	B+
82.6 – 87.5%	B
79.6 – 82.5%	B-
77.6 – 79.5%	C+
69.6 – 77.5%	C
59.5 – 69.5%	D
< 59.5%	F

**Incompletes (I Grades):** The grade of I (incomplete) is given for passable work that could not be completed due to circumstances beyond the student's control. The "I" grade will not be used to avoid a student receiving a D or F grade.

### **DISABILITIES:**

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADAAA) covers issues relating to disability and accommodations. If a student has questions or needs an accommodation in the classroom (all medical information is treated confidentially), contact:

Trudy Luken, Director  
Student Accessibility Services (SAS) - Corbett Center, Rm. 244  
Phone: (575) 646-6840 E-mail: sas@nmsu.edu  
Website: <http://sas.nmsu.edu/>

**DISCRIMINATION:**

NMSU policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct: sexual violence (sexual assault, rape), sexual harassment and retaliation.

For more information on discrimination issues, Title IX, Campus SaVE Act, NMSU Policy Chapter 3.25, NMSU's complaint process, or to file a complaint contact:

Gerard Nevarez, Title IX Coordinator  
Agustin Diaz, Title IX Deputy Coordinator  
Office of Institutional Equity (OIE) - O'Loughlin House, 1130 University Avenue  
Phone: (575) 646-3635 E-mail: equity@nmsu.edu  
Website: <http://www.nmsu.edu/~eoo/>

**Other NMSU Resources:**

NMSU Police Department:	(575) 646-3311	<a href="http://www.nmsupolice.com">www.nmsupolice.com</a>
NMSU Police Victim Services:	(575) 646-3424	
NMSU Counseling Center:	(575) 646-2731	
NMSU Dean of Students:	(575) 646-1722	
For Any On-campus Emergencies:	911	

**CHEATING/PLAGIARISM POLICY:**

Plagiarism is using another person's work without acknowledgment, making it appear to be one's own. Intentional and unintentional instances of plagiarism are considered instances of academic misconduct and are subject to disciplinary action such as failure on the assignment, failure of the course or dismissal from the university. The NMSU Library has more information and help on how to avoid plagiarism at <http://lib.nmsu.edu/plagiarism/>

**IMPORTANT DATES:**

- January 19<sup>th</sup>: No class, Martin Luther King Jr. Holiday
- March 23<sup>rd</sup> – 27<sup>th</sup>: No class, Spring Break
- April 3<sup>rd</sup>: No class, Spring Holiday

**DISCLAIMER:**

This syllabus is subject to change without notice!

**EMAIL / CONTACT POLICY:**

My typical response time to emails is between 24 and 72 hours. If you don't get a reply, please double check that you have the correct address ([mhout@nmsu.edu](mailto:mhout@nmsu.edu)) and try emailing me again (or stop me in class). I prefer that you send emails to my personal email rather than message me through Canvas. It's easier for me to respond through direct email, and therefore you are more likely to get a speedy response from me there.

**TENTATIVE SCHEDULE:**

Date	Topic	Reading Assignment
21-Jan	Course Overview / Thinking like a scientist	Chapter 1
26-Jan		
28-Jan	Getting started: Ideas, resources, and ethics	Chapter 2
2-Feb		
4-Feb	Defining, measuring, and manipulating variables	Chapter 3
9-Feb	Exam 1	Covers Section 1 & Readings
11-Feb	Descriptive Methods	Chapter 4
16-Feb		
18-Feb	Data organization and descriptive statistics	Chapter 5
23-Feb		
25-Feb	Correlational methods and statistics	Chapter 6
2-Mar		
4-Mar	Exam 2	Covers Section 2 & Readings
9-Mar	Probability and hypothesis testing	Chapter 7
11-Mar		
16-Mar	The logic of experimental design	Chapter 9
18-Mar		
23-Mar	No class, Spring Break	
25-Mar	No class, Spring Break	



30-Mar	Experimental designs with two (or more) levels of an independent variable	Chapters 10 & 11
1-Apr		
6-Apr	Exam 3	Covers Section 3 & Readings
8-Apr	Complex experimental designs	Chapter 12
13-Apr		
15-Apr		
20-Apr	Quasi-experimental and single-case designs	Chapter 13
22-Apr		
27-Apr		
29-Apr	Exam 4	Covers Section 4 & Readings
4-May	Optional Cumulative Final: 1-3pm	Covers Sections 1-4 & Readings

\*\*\* Please note: This schedule is subject to change, according to class demands! \*\*\*