Research Methods I

Fall 2013

Professor: Nancy Darling, Ph.D.
Office: 228B Severance Laboratory
Home phone: 774-6804 Please don't call after 11:00PM.
Office hours: Monday 1:30-3:30, Friday 9:00-10:30 or by appointment. Or please drop by or drop me a note if you have a question or want to talk about the class.

Lab Instructor: Peter Naegele, Ph.D.
Office: 107 Severance Laboratory (right across from the Psych Dept office)
e-mail: Pete.Naegele@oberlin.edu

Goals:

This course will probably be different from other psychology courses you have taken in that, rather than spending your time learning what other psychologists have discovered, you will be learning to *become* a psychologist. Psych 200 is designed to help you develop the basic skills you need to continue your study of psychology: reading the primary psychological literature, evaluating the results of psychological studies, carrying out psychological research, using statistics to analyze data, and presenting your research findings to interested colleagues.

This course integrates the study of statistics and the study of research methods so that you get a clear idea of how and when to use statistics to answer questions you are interested in. We will learn basic concepts in probability and include study of normal distributions, t-tests, one-way and two-way ANOVA, correlation, simple regression, and chi-square. Although based in mathematics, our study of statistics will not focus on the details of statistical calculation. It is my hope that when you finish this semester you will have a basic understanding of a) the underlying logic of statistical analyses and of each specific test we will study, b) how characteristics of the data to be analyzed contribute to the results and interpretation of statistical analyses, c) when to apply each test, and d) how to produce and interpret statistical output in SPSS. You will also spend a lot of time learning to carry out research and applying what you've learned about research methods and statistics to specific situations, analyzing your results to see what you've learned, and presenting the results of your work.

This course is very hands on. I think the lab is the heart of the course, because it's here that you really learn to use what you've been taught. During lab, you will begin to develop the skills needed to do a literature review, write up a scientific report, use SPSS to describe and analyze data, and design and carry out a study. It's in lab that you will find out whether you really understand and can use the material you've been exposed to in class and through the readings. In lab, we'll go back and forth between working with data and working on scientific research and writing skills. Labs are a setting for you to work on your own, get feedback from me, Pete, and your peers, and get your projects done.

Together, the course is designed to provide you with a foundation for planning or assessing research in the social and life sciences, to choose appropriate quantitative methods to answer research questions, to use SPSS to analyze your data, and to present your findings to a scientific audience. These skills are critical for people planning on going into research and are useful in everyday life and many work settings. They are particularly important, however, for people interested in going into applied areas, such as clinical psychology, the helping professions, public policy, or community outreach. The complexity of applied fields makes doing research in these settings particularly challenging. However, it is only through strong research that we know we are optimizing treatment or doing good rather than harming our clients, and can convince legislatures and the public to support our efforts. *It is through good research design and solid statistical analysis that we know that our efforts to help people won't hurt them instead.*

Course Requirements:

THIS CLASS IS A LOT OF WORK. It is your responsibility to attend all classes, watch assigned videos, and learn material presented during class, labs, and outside assignments. You are responsible for keeping yourself informed of any changes that are announced in class regarding assignments and changes in schedule.

THIS IS IMPORTANT. The course is focused on you - the student - and not on marching you through some time-defined set of exercises. Because of this, expect that **THE SCHEDULE IS GOING TO CHANGE.** If it seems we need to spend more time on something, assignments may be moved back (or if things go quickly, sometimes even a tad forward). You will always be given plenty of lead time and all changes will be announced in class and posted on Blackboard. Because things are going to change **DATES AND ASSIGNMENTS POSTED ON BLACKBOARD ARE THE DEFINITIVE WORD**. If there is a conflict between a paper handout and Blackboard, Blackboard is correct.

Psych 200 is designed as an applied course. Most of your time will be spent clarifying concepts presented in the text, providing additional examples to help you better understand the concepts, answering questions, and working on your research projects. If you don't keep up with the readings, you'll have trouble following class and I won't be able to answer your questions when they come up. If you don't come to class, you'll be lost in lab. The more you put into the class, the more you will get out of it and the more you will enjoy it. Really.

Evaluation:

There are four major criteria on which you will be evaluated: shorts assignments, the problem sets, your performance on exams, and the research project.

Short assignments.

The goals of the short assignments are to (a) consolidate material we've just learned in class, (b) prepare you for the next class, or (c) help keep you up to date on your reading. Short assignments:

- Will USUALLY be posted on Blackboard. There are times that assignments are announced in class. There are also times when we do an unannounced exercise in class that counts as a short assignment.

- Are graded as done (1) or not done correctly (0). If you turn in the assignment and it looks like you did not understand the material and got a 0, you may redo it and turn it in within 2 days of it being graded for full credit.

- Must be put in the box outside of Pete's door or emailed to Pete by 11:00 the day they are due. HOWEVER **if you come to class and wish to redo the assignment** before turning it in, show Pete your first attempt and you have until 5:00 to get it in for grading.

Problem sets.

Because the material presented in research methods and statistics is cumulative, it is absolutely essential that you are comfortable with each section of the course before we move on to the next. As we move through each chapter, you will have a series of questions assigned from your text. These are turned in to Peter by 11:00 on the day they are due. Again, **if you come to class with the assignment done** and want to make changes before you turn it in for grading, show it to Pete and you may have until the next morning to make corrections.

The goal of this assignment is to make sure you are clear on the major constructs and to alert you to any points of confusion so you can ask questions. In addition, the problem sets are designed to help integrate the classwork and readings with the labs and give you a chance to practice SPSS.

These assignments will be graded on a traditional A-F scale. The modal grade for problem sets is a B. This means you did a good, solid job with no mistakes. To get an A, you need to show exceptional insight into the issues, provide full explanations integrating material from the text, and write in good clear disciplinary appropriate prose.

We want these exercises to be as useful to you as possible:

- Start the problem set early when we're working through the chapter in class. You will be able to ask your questions in class and have a much easier time following lectures.

- The problem sets are always due at least two days before the exam on the topic. As soon as you see you're having a problem, meet with me or Peter and work through it.

In addition to the statistically focused problem sets, you will also do several writing assignments focused on research methods and scientific writing. These will be weighted in your grade as equivalent to problem sets.

Exams.

There will be three exams focusing on statistics and research design. The goal of the exams is to help give you feedback on each section so you can come get help in any area you aren't comfortable with. Each of them will cover factual knowledge and definitions, most will include some closed format questions (multiple choice, fill in the blank, matching), interpretations, and calculations, and all will include questions involving applications and the interpretation of SPSS output. All of them require a good understanding of research design.

Research Project.

Every student in the class will do a research project and write it up in appropriate APA format. The project will be begun during lab after mid-term. We will work on parts of it cumulatively, but the bulk of it will be completed during the last two weeks of class and over reading period. It will be turned in during our scheduled final exam period.

Grading.

Your final grade will be calculated as follows:

- 5% Short Assignments
- 40% Problem Sets
- 40% Exams
- 15% Research Project

Please note that there are lots of ways to do well in this course. The grading is designed so that hard work and conscientious effort counts. It has been my experience that people are most likely to get in trouble by neglecting the small, little projects - turning in short assignments and doing the problem sets. Similarly, if you plug away and do all the assignments and put effort into your short assignments and problem sets, they will both help you do well on your tests and project and also give your grade a boost.

Extra Help:

This course is going to be challenging and requires you to do a lot of independent work. If you have questions, if you feel frustrated or confused, or if you just want to talk about the class, PLEASE COME SEE ME OR PETE! We are around most of the time, and you can always set up an appointment with me after class or by e-mail. There is excellent support available from the Student Support office. Peter is very

helpful in working through stats, methods, and SPSS problems with you. If you feel lost, please come get help.

I STRONGLY, STRONGLY, STRONGLY encourage you to work with other people in the class to prepare for exams and work on your problem sets. Working together will both make it more fun and help you understand the material better.

Missed exams, late projects, and absences:

Because it is extremely difficult to evaluate the validity of excuses for missing a class, the general policy will be to permit make-up exams only for confirmed emergencies or an illness that requires confinement to your room or hospitalization. No other rationale for postponing an exam will be accepted. Please notify me as soon as it is apparent that an exam will be missed (e-mail is probably the easiest way to do this). Failure to notify me promptly may result in refusal to administer a make-up, with a resultant 0 averaged into your final grade.

ALL WRITTEN ASSIGNMENTS ARE DUE BY THE BEGINNING OF CLASS ON THE DAY INDICATED ON THE SYLLABUS. It is unfair to classmates who push themselves to complete their work by the due date for you to turn your work in late. Everyone could do a better job given a little more time. As already stated, if you have made a good faith effort to do the assignment, come to class with it, and realize it would benefit from a bit more work, you can ask Pete for a short extension to fix problems. To get this extension, you MUST be able to show that you had completed work to come in. Late problem sets will automatically be dropped a full letter grade unless you have made special arrangements with Pete and are not accepted more than 48 hours late. Because the final project functions as a final exam, it is against College policy for me to accept it late. It is not eligible for extensions due to multiple exams on the same day (sorry.

A note on academic integrity:

One important skill that you need to develop is the ability to distinguish between your own ideas and those of other people. Although most obvious in cases where text is copied word for word, plagiarism also includes copying ideas or arguments from one source and presenting them as your own. Plagiarism can involve as little as copying a key phrase or sentence without acknowledging the source. It is easy to avoid. Use quotation marks to indicate direct quotes. If you are presenting an idea or an argument that you read somewhere else, give the person who first developed the idea credit for it. Remember, when in doubt, cite.

Your conduct during examinations and the preparation of written work are covered by the Oberlin College Honor Code. Please ask me if you have any questions about the application of the Honor Code to this class.

You are welcome - ENCOURAGED! - to work with other students on your short assignments, problem sets and project. However, to turn this work in as your own, you must have contributed to finding the right answers and worked collectively towards that goal. Joint work is encouraged - copying from other students or directly from the answer key is a violation of the honors code.

Each assignment and exam you turn in for grading must state "I affirm that I have adhered to the Honor Code in this assignment" with your signature.

If you work on a project with another student, note who it was on your paper. In addition to the honor code, please acknowledge that each of you have contributed equally to the work you are turning in.

A link to the full honor code is available from the Academics link on Oberlin On-Campus:

http://new.oberlin.edu/office/dean-of-students/honor/students.dot

Any violation of ethical standards for the treatment of human research participants or any violation of the APA ethics code will result in an F for the class.