Psyc 120: Advanced Research Methods and Design
Fall, 2011

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Office Hours, Fall 2011
Mondays: 3:30 - 4:30
Wednesdays: 3:30 - 4:30

Class Days/Time: Section 10 (Mondays and Wednesdays);
Lecture: Mondays & Wednesdays, 4:30 - 5:45 PM in DMH 347
Lab: Mondays, 6:00 - 8:20 PM in DMH 339

Prerequisites:
Psyc 1, Stat 95, and especially Psyc 100W.
These courses are pre-requisites, not co-requisites.

Course web site: http://www.mikedillinger.com/joomla

Course Description

[From the Course Catalog] Traditional laboratory experimental designs and methodology; experiments illustrating this approach.

How do the “hard” sciences work? Why should we (or shouldn’t we) do experimental research in psychology? What are the parts of an experiment? What are the best ways to plan, execute, and report experimental research?
This course is an intensive, hands-on introduction to the basic experimental tools used in the social and behavioral sciences. Students will develop an understanding of the principles and procedures involved in scientific research in psychology, in particular, a firm grasp of the logic and application of experimental methods.
Required Texts/Readings

You are not required to buy a textbook for this course. However, you are required to read the textbook! The materials for each topic are on the course web site:

http://www.mikedillinger.com/joomla

I also suggest that you own a book on research methods, especially if you intend to go on to graduate school. I particularly like this one:


Other equipment / material requirements

> You may want to purchase a lab coat to look like a scientist, although it’s not required :-)

> You will also need easy access to a computer with word-processing (MS Word), email, spreadsheet, and internet browsing applications. You will also need Adobe Acrobat Reader for reading class materials.

> I strongly recommend that you bring your laptop and/or a USB drive to class with all of your research materials.

> Make a wiki to collaborate more effectively with your partner. Ask about this in class!

Grading Policy

Your grade in this course depends on two factors: your assignments during the semester (they should be complete and on time) and your final research paper (we will discuss evaluation criteria in detail).

See more about grading here: Heads-up about your Final Grade.

NOTE that time management has consistently been students’ biggest problems in this course.

Stick to the schedule as closely as possible. Work ahead whenever possible.

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The Final Exam is required but does not contribute to your grade. It will cover the basic principles of experimental design and execution.

Extra Credit

You can get up to 10 additional points of extra credit if:
1) you request it, and
2) the writing in the literature review of your final Research Paper is not only complete but also visibly better than the draft versions.

**Course Goals and Student Learning Objectives**

This is a course on the practical and theoretical aspects of how to plan, execute, and report on experiments. Students in this course will develop proficiency with the following tasks:

1. Formulate research problems;
2. Find, understand, and present existing research about a given research problem;
3. Plan and execute data collection for a given research problem;
4. Analyze data statistically and interpret the results;
5. Present the experiment professionally in writing and orally.

**Classroom Protocol**

This is a hands-on, advanced course, which means that you must take charge of your work and your schedule. In this course, you will plan, execute, and report your own experiment with a partner and your experiment will be the focus of the whole semester. You will also study other experiments and the principles that underlie their design and execution (in lecture).

Lectures will focus on giving you the information you need to make methodological decisions for your experiment. Labs will be hands-on sessions developing the details of your experiment with my supervision.

Effective time management is essential: if you do not follow the schedule and get your assignments in on time, you will feel overwhelmed with the things that you have to do to catch up. Something important will be due each week, so PLAN AHEAD and budget plenty of extra time: the first time you do something, it always takes much longer than expected. Do not miss lectures or labs: it will be doubly difficult for you to catch up.

This is a very intensive course for most students, so I recommend that you take it only when you have a lighter-than-usual course/work/family load.

The course has been organized into several Milestones, each of which focuses on a different part of the research process. For each Milestone, I'll post a package of materials (on the web site) about what has to be done, for when, how to do it, and background information about that part of research.

For each Milestone, you'll have one or more assignments to hand in as part of your grade. You have to hand in each assignment TWICE: first in a draft version, then in a “working” version. The important thing about a draft version is that it has to be COMPLETE: you need to have at least tried to do all of the parts of the assignment. This is so that you will be prepared to ask and understand any questions that come up for discussion. The working version is what you get graded on for each Milestone, and it is the version that you will continue to revise as your research progresses and before it gets integrated into your final paper.

**University Policies**

You should know that the University’s Academic Integrity Policy is available at [http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf](http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf). Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University’s integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The website for Student Conduct and Ethical Development is available at [http://www.sa.sjsu.edu/judicial_affairs/index.html](http://www.sa.sjsu.edu/judicial_affairs/index.html).
Academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Policy F06-1 requires approval of instructors.

**Campus Policy in Compliance with the American Disabilities Act**

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

**Dropping and Adding**

You are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Information on add/drops are available at [http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-324.html](http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-324.html). Information about late drop is available at [http://www.sjsu.edu/sac/advising/latedrops/policy/](http://www.sjsu.edu/sac/advising/latedrops/policy/). Students should be aware of the current deadlines and penalties for adding and dropping classes.

**On-campus Resources for you**

**Library Liaison**

Bernd Becker, Psychology Librarian -  [Bernd.Becker@sjsu.edu](mailto:Bernd.Becker@sjsu.edu)

Bernd can answer your questions about how best to use the library's resources.

Note: He’s VERY helpful! Make an appointment with him soon!

**Student Technology Resources**

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

**Learning Assistance**

**Learning Assistance Resource Center.** The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students develop their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. The LARC website is located at [http://www.sjsu.edu/larc/](http://www.sjsu.edu/larc/).

**SJSU Writing Center.** The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers. The Writing Center website is located at [http://www.sjsu.edu/writingcenter](http://www.sjsu.edu/writingcenter).

**Peer Mentor Center.** The Peer Mentor Center is located on the first floor of Clark Hall in the Academic Success Center. The Peer Mentor Center is staffed with Peer Mentors who excel in helping students manage university life, tackling problems that range from academic challenges to interpersonal struggles. On the road to graduation, Peer Mentors are navigators, offering “roadside assistance” to peers who feel a bit lost or simply need help mapping out the locations of campus resources. Peer Mentor services are free and available on a drop— in basis, no reservation required. The Peer Mentor Center website is located at [http://www.sjsu.edu/muse/peermentor/](http://www.sjsu.edu/muse/peermentor/).