Psychology 228, Section B: Experimental Psychology
Spring Semester, 2002
“In God we trust. Everyone else must provide data”

Mondays and Wednesdays, 1:00 – 2:20. Maxey 209

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Office Hours: Monday, 3:00 – 4:00; Tuesday through Thursday, 11:00 – 12:00
Also available by appointment

Course web page: http://people.whitman.edu/~herbrawt/classes/228/psych228.html

Course Materials

Required Text:

Recommended:
(If you're a psychology major, you'll definitely want to have your own copy)

Shameless advertising:
(A classic. Infinitely useful for any college-level writing.)

Supplemental Readings (available on e-reserve and at Penrose Library):


Martin’s text is available at the bookstore. Supplemental readings are on reserve at Penrose Library and on the web via e-reserve.

**Course Overview:**

This class is designed to provide an introduction to the methods of scientific investigation used in modern Psychology. The focus is on Psychology as a field that uses the methods of science to investigate behavior and mental life. These will apply to all areas of psychology regardless of the subject matter – from clinical psychology to neuroscience to social interaction. Even if your career goals don’t involve research (or even psychology), it is my hope that this course will provide you with the tools needed to become a shrewd consumer of research. By the end of the semester you should be able to design sound experiments, interpret results and critique research with respect to possible design flaws, confounding variables, and misinterpretations. In short then, this is as much a course on skepticism and critical thinking as anything!

Generally, Mondays will be traditional class periods – some lecture and some discussion. Wednesdays will usually be oriented around small group discussions, so be sure to read
the assigned articles and come prepared to discuss them. It’s often a good idea to come armed with some questions and criticisms. In the case of experimental critique days, your written critiques (see below) will be helpful for doing this.

Statistics: The course material in Experimental Psychology is designed to stand alone. However, the content dovetails nicely with a basic knowledge of statistical analysis. Hopefully those of you who have taken or are currently enrolled in statistics will see the many connections between the two. If you haven’t taken statistics, you won’t be at a tremendous disadvantage, but keep in mind that stats is an important component to research that will not be covered adequately in this course (though by mastering experimental methods first, you may reap benefits if and when you decide to take statistics).

Grading and Assignments:
Your grade in Psychology 228 will be based on the following:

In-class “nuts and bolts” exam: ............................................. 15%
Short Experimental Report (introduction and method): ...... 5%
Long Experimental Report: .............................................. 15%
Experimental critiques: .................................................. 15% total
In class presentation of final project: ............................... 15%
Skepticism debate / presentation: ..................................... 10%
Class participation: ......................................................... 10%
Take-home final: ............................................................. 15%

In-class exam format: The mid-term exam will be in class on April fools day (yes, really), as indicated in the syllabus. It will consist of written format essay and short answer questions, and is designed to assess understanding of the nuts-and-bolts practical knowledge one should get in an Experimental Psychology class. The short answer items can be answered appropriately in an average length paragraph (4 sentences, or about a third of a page, given average handwriting). Good responses to essay questions will likely be about a page in length. This exam will be closed-book.

Experimental reports: We will conduct two experiments in class, and these experiments will serve as the topics for two research reports. The purpose of these is to gain experience writing research reports and familiarize you with the specifics of writing in APA format. They will also provide an opportunity to apply your knowledge of experimental design and interpretation. The first research report is due on February 20 and will require only the first two sections (Introduction and Method). The second is due on March 22, and should be the complete report. Experimental reports will be graded with respect to:

1) Quality of writing (as with any paper!)
2) Adherence to APA format
3) Adequate literature review and justification of the experiment
4) Logical and rational interpretation of results
**Experimental Critiques:** On 6 days throughout the semester, we will read and discuss research reports that have been published in peer-reviewed Psychology journals. For 5 of the six, you’ll need to come to class with a written critique of the research. These should be about 3 pages in length; use the critiques given at the end of Rendell & Whitehead (2001) as a model. Have these ready to turn in at the beginning of class, and be ready to share your opinions and observations with the discussion group. Note: You may turn in all 6; if you do I’ll take your highest five to factor into your grade.

I’ll grade these on a 10 point scale, taking the following considerations into account:

- Were your critiques fair?
  - arguments supported by evidence and logic
  - criticisms are legitimate and relevant
  - suggestions are something the author could actually respond to

- Was your analysis complete?
  - strengths and weaknesses included
  - summary of experiment(s) and conclusions

**Final project:** In order to gain an appreciation for how psychological research is really done, individual students will plan and execute an experiment of their own design during the semester. This will include interpreting the results and presenting them to the rest of the class at the end of the semester. Presentations should be about 10 minutes in length and directed toward a general audience. In addition, turn in to me an abstract and a method section the day of your presentation. Be sure to let me know in advance if you need any special equipment for your presentation so I can make the appropriate arrangements.

Students may collaborate on the experiment if you have related topics (for instance, by sharing responsibilities for data collection). However, each presentation should be independent and include a different analysis or variable (in fact, this is how many research programs operate in the real world). For instance, if two students are interested in student attitudes about animal research, they might cooperate by collecting survey data together and sharing the large pool of data. Then one might analyze and interpret the results, looking for differences between males and females. The other might look at an orthogonal variable, such as Psychology majors who have taken rat-lab versus non-psychology majors.

It is a good idea to begin thinking about your project early in the semester so that you leave yourself adequate time to find appropriate literature and resources, as well as design, execute, and plan your presentation.

These presentations will be graded based on the following criteria:

1. Adequate background information
2. Appropriate clarification of methodology
3. Sound interpretation of results and experimental findings
4. Pacing and clarity of presentation
5. Use of appropriate methodology and experimental design
Skepticism Debate: Fairly early in the semester, we will hold “debates” in class to get us all into the spirit of healthy, amiable skepticism. Pairs of students will each select a topic about which there is some significant disagreement about the legitimacy of a phenomenon (for example, ESP or acupuncture). You will then research and present the evidence for and against, and draw some conclusion about what the evidence supports. These can be done as a traditional debate, with points and counterpoints made by “pro” and “con” debaters, or they could be more of a presentation format, or you could be creative and present a demonstration or even frame it as a “60 Minutes”-style investigative report... the sky is the limit. Try to keep presentations at about 10 minutes. I’ll present more specifics and possible topics as the assignment approaches.

Class participation: I encourage active participation in class. Not only does this enhance retention of information, but hey – you can get “free” points by doing it. This is particularly important on days when labs and discussions are scheduled (usually Wednesdays). If you’ve written your experimental critique in advance, active participation should be easy to do.

Take-home final: The final exam will be a take-home assignment. I’ll distribute the questions on the last day of class, and responses will be due on May 14, the day our final would be administered. Responses should be typed, and will likely be about 5 pages in length.

Grading Scale: Grades will be assigned based on the percentage of all possible points earned (see above for the relative contributions of each assignment). Below are the overall performance ranges that result in various letter grades.

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Tentative Schedule of Topics and Assignments:

Week 1
M, 1-14 Introduction
W, 1-16 Rights and responsibilities of membership in the scientific community
   Read: Rendell & Whitehead (2001)

Week 2
M, 1-21 No Class. Spend some time thinking about MLK
W, 1-23 The scientific method
   Read: Popper (1962); Platt (1964); Chapter 2

Week 3
M, 1-28 Library and resources
   Read: Chapter 6
W, 1-30 Critique #1
   Read: Clark & Hatfield (1989); Kenrick & Gutierres (1980)

Week 4
M, 2-4 Journals, APA style and writing
   Read: Bem (in press); Ch. 13
W, 2-6 Critique #2
   Read: Weller (1984); Landrum (1999)

Week 5
M, 2-11 Amiable Skepticism
   Read: Honorton (1993)
W, 2-13 Critique #3
   Read: Burgess et al. (1998); Jacobson et al. (1995)

Week 6
M, 2-18 President’s Day
W, 2-20 Creativity and experimental ideas
   Intro and methods due
   Read Forscher (1963); Chapter 3

Week 7
M, 2-25 Skepticism debates
W, 2-27 Skepticism debates

Week 8
M, 3-4 Internal VS external validity
   Read: Mook (1983); Banaji & Crowder (1989)
W, 3-6 Critique #4
   Read: Goestestam (2001)
Week 9
M, 3-25  Alternative Experimental Designs
Read: Chapter 10
W, 3-27  Ethics discussion
Read: Zimbardo et al. (2000); APA (1992)
Experiment #2 write up (the whole thing) due

Week 10
M, 4-1  Nuts and Bolts Exam
W, 4-3  Critique #5
Read: Aguinis & Handelsman (1997); Roese & Jamieson (1993)

Week 11
M, 4-8  Reductionism
Read: Dawkins (1998); Skinner (1957)
W, 4-10  No class – instructor out of town.

Week 12
M, 4-15  T.S. Kuhn and contextualism discussion
Read: Kuhn (1962); Chomsky (1959)
W, 4-17  Critique #6
Read: Linder et al. (1967)

Week 13
M, 4-22  Project Presentations
W, 4-24  Project Presentations

Week 14
M, 4-29  Project presentations
W, 5-1  Project Presentations
M, 5-6  Wrap-up, spillover day

Finals week: Take-home final due.
Some not so commonly asked questions...

Q: I hate this! How do I withdraw?

A: Students may drop without record until February 22. If you plan to do this, please do so as quickly as possible so that others may register. After that, students may withdraw until April 5, and doing so will leave a nifty “W” on your transcript.

Q: Is attendance required?

A: No, but it is highly recommended. My official policy is that you are the one paying to go to class, so you may attend whenever you deem necessary (outside of days when things like exams are scheduled). Keep in mind though, that this is largely a discussion based class, and you are responsible for any material covered in class. Furthermore, it obviously won’t help the participation portion of your grade. Thus, if you will be absent, it’s a good idea to borrow notes from somebody to ensure you don’t miss anything important.

Q: I think I’m going to have smallpox on several key dates throughout the semester. Can I schedule makeup exams?

A: Notify me as soon as you realize there will be a serious conflict. Makeup exams can be arranged only for legitimate and properly documented excuses (i.e., serious illnesses, natural disasters and the like, with a corresponding doctor’s note, CNN footage, subpoena, etc.) Note: The season finale of Survivor is not a legitimate excuse. If it’s that important I’d be happy to tape it for you. Maybe we’d even watch it in class.

Q: Dude, I bombed that first exam... What can I do?

A: I don’t offer extra credit, but keep in mind that the remaining components should provide a good opportunity to correct a rough start. No single assignment counts for more than 15% of your final grade.

Q: What were you talking about on Monday?

A: Please feel free to ask questions during lectures, and let me know if I’m moving too quickly or am not explaining something clearly - It’s difficult for me to know what you’re experiencing in class. I’m also glad to take some time at the beginning of class to clarify points from previous lectures or from the text.