ENS 602 - Research Evaluation in Exercise and Nutritional Sciences  
Fall 2012: Tuesday 4:00 – 6:40 PM  
Dr. Susan Levy

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Office Hrs: Tues 12:30 - 2:00 PM or by appointment

REQUIRED TEXTS
2. Course readings assigned in class, available on Blackboard

RECOMMENDED TEXTS
3. San Diego State University -- Master's thesis & project manual (Only if you are planning on traditional thesis/project as capstone experience)

Useful websites:
- Research Methods in the Social Sciences: An Internet Resource List  
  - [http://gsociology.icaap.org/methods/](http://gsociology.icaap.org/methods/)
  - A New View of Statistics  

COURSE OBJECTIVES
On completion of this course, students should be able to:
1. identify the steps in the scientific method of research.
2. identify and evaluate different kinds of research designs.
3. describe what is required for the protection of human subjects.
4. identify sources of invalidity and ways to control them.
5. describe the concepts of validity and reliability as they apply to research.
6. use SPSS to calculate validity and reliability coefficients and be able to interpret their meaning.
7. critically evaluate research abstracts/articles in exercise and nutritional science.
8. conceptualize, plan, and write a proposal to answer a research question

COURSE REQUIREMENTS

Tests 1 & 2  20% each  
Assignments  
Research Project* (Due Tues November 27)  20%  
Final Exam (Tues, Dec 11th, 4:00 PM – 6:00 PM)  20%  
100%

* To be submitted in duplicate (hardcopy & electronic copy via e-mail).
## COURSE OUTLINE

<table>
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<tr>
<th>Week</th>
<th>Topics</th>
<th>Text Reading</th>
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| **Week 1: Aug 28** | Overview of the Research Process  
The Scientific Method                          | Chapter 1     |
| **Week 2: Sept 4** | Research Paradigms  
Defining & Delimiting the Problem                                             | Chapter 3     |
| **Week 3: Sept 11** | Library Research Resources  
Anne Turhollow – Love Library  
Understanding Proper Citation of Sources  
Structure of the Research Proposal  
Developing the Research Hypothesis |              |
| **Week 4: Sept 18** | Measurement Concepts  
- Validity                                                   | Chapter 11    |
| **Week 5: Sept 25** | Measurement Concepts  
- Reliability                                                 |              |
| **Week 6: Oct 2** | **Test #1**  
Protection of Human Subjects                                      | Chapter 5     |
| **Week 7: Oct 9** | Review of the Literature                                                   | Chapter 2     |
| **Week 8: Oct 16** | Formulating the Method: Participants, Measures and Instruments, Procedures, Data Analysis | Chapter 4     |
| **Week 9: Oct 23** | Sampling Techniques; Results & Discussion  
Types of Research  
- Meta-analysis  
- Surveys / Questionnaires                                     | Chapter 14    |
| **Week 10: Oct 30** | Establishing Causality                                                   | Chapter 18    |
| **Week 11: Nov 6** | **Test #2**  
Threats to Internal & External Validity                                      |              |
| **Week 12: Nov 13** | Study Designs  
- Pre- and Experimental, and Quasi-experimental                           | Chapter 19    |
| **Week 13: Nov 20** | NO CLASS – PROPOSAL WORK DAY                                                  |              |
| **Week 14: Nov 27** | **Research Proposal Due**                                               |              |
| **Week 15: Dec 4** | Study Designs  
- Qualitative Methods                                               |              |
| **Dec 11th** | Final Exam (Test 3); 4 – 6 PM                                              |              |

### GRADING

- 90% - 100% A
- 88% - 89% A-
- 86% - 87% B+  
- 80% - 85% B
- 78% - 79% B-  
- 76% - 77% C+  
- 70% - 75% C  
- 68% - 69% C-
- 66% - 67% D+  
- 60% - 65% D  
- 58% - 59% D-  
- Below 58% F

**Please note:**
If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with me soon. Please request that the Disabled Students Services provide a list of needed accommodations.
**Assignments**
All assignments are due on the announced due date. **No late assignments will be accepted.**

**Academic Honesty, Integrity, and Plagiarism:** Please adhere to the guidelines set forth in the Graduate Bulletin (see Regulations of the Division of Graduate Affairs). Cheating and plagiarism will result in at a minimum, a failing grade for the exam, assignment, or paper in which either or both occurred.

**ADDITIONALLY:**
Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. You may submit your papers in such a way that no identifying information about you is included. Another option is that you may request, in writing, that your papers not be submitted to Turnitin.com. However, if you choose this option you will be required to provide documentation to substantiate that the papers are your original work and do not include any plagiarized material.

**Plagiarism**
A special note is made here, to reduce any misunderstanding of what comprises plagiarism. The Graduate Student Bulletin presents the main points that indicate plagiarism. Further information is also found at: 
[http://www.plagiarism.org/plag_article_what_is_plagiarism.html](http://www.plagiarism.org/plag_article_what_is_plagiarism.html)

University guidelines will be followed in the event that plagiarism is detected in student work. These guidelines are found on p. 66 of the SDSU Graduate Student Bulletin.