

January 9, 2015

## PSY 3110-002: Research Methods in Psychology

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Professor:	Dr. Yueh-Ting Lee
Class Time:	MW 12:00pm-1:40pm
Classroom:	University Hall 5150F
Office:	UH 5040C
Office Hours:	MW 11:00am-12:00pm by appointment
Contact Info:	419-530-2347 ( <a href="mailto:YT.Lee@UToledo.edu">YT.Lee@UToledo.edu</a> )
Hybrid Class (70-30)	70% in class or lab and 30% on line
Home-page	<a href="http://lee.socialpsychology.org">http://lee.socialpsychology.org</a>

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### PREREQUISITE

PSY 2100: Statistical Methods

### CO-REQUISITE

This course is part of the WAC (Writing Across Curriculum) courses for psychology majors. For more information, please see page 44 in the *University of Toledo 2006-2008 General Catalog* or check the website for more updated info: [http://www.utoledo.edu/as/wac/wac\\_studentreq.html](http://www.utoledo.edu/as/wac/wac_studentreq.html). Students will be asked to revise/rewrite and re-submit their research reports based on the feedback from the instructor.

### TEXTS & OTHER MATERIALS (see the level of requirement)

#### Required

1. Online materials (ppt and e-materials 100% required but free)
2. Sommer, R., & Sommer, B. (2002). A practical guide to behavioral research: Tools and techniques (5<sup>th</sup> ed.). New York: Oxford University Press (90% required).
3. A USB Flash Drive 100% required.

#### Often used (required to learn but optional to buy)

1. Publication Manual of American Psychological Association (2009 6<sup>th</sup> edition) –50% required especially when you write your research reports.
2. Martin, D. W. (2008). Doing psychology experiments (7<sup>th</sup> Ed.). Belmont, CA: Wadsworth (35% required—especially Chapters 7, 8, 9, 10 on experimental designs which must be read and tested but the rest of 65% will be optional)

#### Optional or recommended

3. Colman, A. M., & Pulford, B. D. (2008). A crash course in SPSS for Windows (4<sup>th</sup> Edition, Versions 14, 15 and 16). Malden, MA: Wiley-Blackwell (50% required and 50% optional).

### COURSE DESCRIPTION

This course deals with introductory scientific methods used in psychology. Students are given laboratory experience at carrying out simple research. They are expected to design, implement, analyze and report their own studies in psychology. Lectures cover the concepts of a hypothesis, an experiment, control procedures, data collection, analysis and psychological report. The course focuses on research methods, experimental techniques and designs, interview techniques, questionnaire construction, and other basic concepts and skills as they are used in psychological research.

## COURSE OBJECTIVES

Research Methods in Psychology is part of the psychology core requirements. It is a fundamental and integral part of our psychology curriculum, as it focuses on experimental and correlational (or non-experimental) methodology, research design, data collection, statistical analysis, and research report-writing. This course will provide a foundation for students to analyze and interpret the research that forms the basis for their psychology area courses, and it will provide them with the tools and skills to conduct their own research projects in their Advanced Research and Independent Study courses. This course also serves as an introduction to and survey of various data collection paradigms and equipment. In brief, students are expected to learn: a) research skills (e.g., how to design and how to run a study), b) computer/statistical data analysis skills; c) writing and communication skills (how to write and present your work psychologically) and other skills and professional ethics.

## COURSE EVALUATION AND REQUIREMENTS

1. 52% Four Quizzes (13% each) and/or a Comprehensive Test (13%)  
(related to materials from lectures and readings)
2. 6% Homework assignments
3. 15% Three Research Reports which must be revised (around 5% for each)
4. 15% One Complete Research Project based on 3 of your revised research reports
5. 12% Required Lab Participation (about 4 or 5 labs) and Hybrid Learning  
(both in class and on line)

Formula to estimate your performance and your course grade:

[A = or > 95 without missing any class or lab, A- = or > 90 (with one class or lab missing),  
B+ = or > 85, B = or > 80, B- = or > 75  
C+ = or > 70, C = or > 65, C- = or > 60, D+ = or > 57, D = or > 53, D- = or > 50, F < 50]

**Academic Honesty: Any dishonesty including cheating or plagiarism will result in an F.**

### *Quizzes and Comprehensive Test (CT)*

Students are required to take all four quizzes. Except documented emergency situations, there is no excuse for any make-up of quizzes. Instead, a Comprehensive Test (CT) that is optional will be offered on the last day of class for two reasons. First, if he or she misses one quiz, that means he or she has to take the CT, or one of your quizzes will be zero. Second, if a person does not do well in one of the quizzes, he or she may choose to take the CT to replace his/her lowest quiz score. In other word, not everyone is required to take the CT which will cover all the materials and lectures through the semester. The total CT score is just equal to a quiz score of 13%.

### **Homework assignments:**

There will be several homework assignments (involving observation writing, APA writing, and SPSS homework assignments) which will be discussed in class in greater length.

### *Research Reports*

Please refer to the class schedule below. There will be three research reports. The purpose of your research reports largely is to help you to do well in your individual research project. All your reports must be handed in on the date specified in our syllabus here. Whether you will do well in your complete research project depends on how well you will complete your research report. Each report will be revised or rewritten. All reports will be sequential (one after another).

Research Report 1 is your introduction and hypothesis based on your literature review.

Research Report 2 is your research method section (i.e., your research design and proposal including your operationalized/specified IV, DV, concrete procedure and research or stimulus materials/equipments, plus attachments of your measures and your research consent form etc). Research Report 3 is your data analysis and results (see the info). Your research reports will be sequential. Please complete one after another. Students will be asked to revise/rewrite and re-submit their research reports based on the feedback from the instructor.

***Individual Study/Research Project***

***(Individual Study/Research Project = Revised Research Report 1+ Revised Research Report 2 + Revised Research Report 3 + Your Discussion and Conclusion+ References + Others)***

Regarding the information of how to do this project, please refer to the sample project either in Sommer and Sommer's book (pp. 341-353) and follow the APA (American Psychological Association) style. Your study may involve experimentation, interview, or questionnaire or other methods but must be designed, performed, data-analyzed, results-interpreted, presented, and written. For your main body of your project, you will have:

an **introduction** section (what problem/hypothesis you are studying and why, also psychological literature review)—i.e., **Revised Research Report 1**

a **method** section (your operationalized/specified IV, DV, concrete procedure and research or stimulus materials/equipments) —i.e., **Revised Research Report 2**

a **results** section (data and figures/tables and other statistics) —i.e., **Revised Research Report 3**

a **discussion** (comparing/interpreting introduction and results; did your results support your hypothesis? Why or why not?) and

a **conclusion** section.

***Lab Requirement and In-class-&-Online Participation***

**In-class/online and lab participation is a must.** Missing a lab or a class meeting means losing points (i.e., 3% to 6 % of the course grade per lab and 2.5% to 5% for each missing class). An individual cannot get an A from this class if he or she misses any class meeting or lab. There are no make-ups for any labs, any notes or any quizzes. We will have much in-class individual advisement for your own project almost every week. All announcements or reminders may be frequently delivered to you in class or posted on our online (hybrid)-course front page. Some important materials or e-handouts will be placed in our online course folders. Please check your online course very often (at least three times a week or at least each time before our class).

**Tentative Schedule and Assignment**(subject to change)

SS ch =B. Sommer and R. Sommer's book's chapter (required)

M ch =Martin's book chapter (only partially required, all the lecture about this book is required)

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01/12 M	<b>Statistics and Computation Screening Test</b> Introduction and Syllabus: In Class & On Line
01/14 W	What is psychological research? Multi-Method (SS ch 1)
01/19 M	MLK Holiday No Class
01/21 W	Catch up
01/26 M	<b>Lab 1 (ABC): Technology, APA Style and SPSS</b> (SS Ch 18-19) APA Manual, SPSS

for Window by Colman & Pulford) **Homework1 on APA Style (due in the following class)**

- 01/28W Research Overview (SS ch 20, cf M ch 1, 2)  
**Online Video 1 on Understanding Research**
- 02/02M **Lab 2 (Animals or Plants-Split Half) Individual consultation arrangement. What do you plan to do in your research? What is your interest?**  
**Homework 2: Online Video 2 on Research Ethics and the Power of Situation (by yourself) and one-page video review due by the next class**
- 02/04 W Ethical Issues in Research (SS 2, cf. M ch 4 & M ch 5)  
**Lab 3 (or Field learning): Finding Scientific Literature and Lab Experiments (How to use UT Library-Database find literature related to your interested topics)**
- 02/09 M Review & Catch-up: Literature Review and Library Research (SS ch 3, Cf M ch 6)**  
**Please find and read FIVE journal articles related to your research topic**
- 02/11W Quiz 1 and Lecture: What do you plan to do in your research?**
- 02/16 M **Lab 4 (and/or field) observation (location TBA) and Catch up**
- 02/18 W Observation & Research Ideas and lecture (SS ch. 4, Cf M Ch 2)  
and also APA citation and style again
- 02/23 M Experimentation (SS ch 6, M ch 7, 8 required-e-materials)**  
**Research Report 1—Literature Review Due (i.e., your Introduction section of your individual research project)--Your introduction part of your project should include the following. What is your research problem or hypothesis? Why do you study it? What have other psychologists done regarding the problem you chose? Please list five references/abstracts related to your research problem. Also you will make sure you will read the full articles of these references and abstract and cite those in your writing. See the sample introduction in your text books.**
- 02/25 W Experimental Designs (SS ch 6, M ch 9, 10 required e-materials)  
**Lab 5 SPSS Homework 3 on SPSS due in the next class**
- 03/02 M Review and Catch up & Consulting on your project**
- 03/04 W Quiz 2: also cover Experimentation**
- 03/09-13 Spring Break
- 03/16 M Catch up cover the rest of experimentation, and Simulation & Interview (SS ch 7 & 8)  
Also plan and work on your RR2
- 03/18 W Lecture and work on RR2: Experimentation, Questionnaire & Interview (SS ch 8 and 9)
- 03/23 M Research Report 2 Due**

You hand in the method section in which you identify your prediction(s)/hypothesis. How will you OPERATIONALLY define your IV and DV? How will you do your study (including your specific measures and specific research procedure/materials)? Please refer to the sample method section in your text books.

Lecture on Experimental and Non-experimental Methods and Rating Scales & Inventories (SS ch. 10, 18)

- 03/25 W      **Lab 6: SPSS and various other methods/techniques**  
 Learn how to use SPSS to compute its mean, mode, median, frequency, bar-chart, correlation & regression, T-test, ANOVA, etc  
 Also be ready for your data collection (sample size is between 12 and 20) if approved.
- 03/30 M      **Catch up and Review:** Please start to collect your data for your project
- 04/01 W      **Quiz 3 and Lecture**
- 04/06 M      Content Analysis/Case Study (SS ch 11, 12, 13)  
**Lab 7: SPSS again and your data analysis** and work with you individually on your project.
- 04/08 W      Catch up and APA Style and SPSS & Specific consultation on your study
- 04/13 M      **Research Report 3 Due (i.e., your Results section)** Please run or analyze your own data either via SPSS or by your calculator. Try to compute its mean, median, frequency, bar-chart, correlation, etc. to see whether your data/results support your original hypothesis. Your organization of results should be based on your research problem/hypothesis.
- 04/15 W      Result interpretation: **Working on your Discussion/Conclusion section**  
 (SS. 20 & CF M. ch 12 & Ch 13 )  
 APA Writing Style & Report Writing-up and Specific consultation
- 04/20 M      **Lab 8:** How to put together all reports (into a research project)
- 04/22 W      Catch up, Lecture and **Review**
- 04/27 M      **Quiz 4**
- 04/29 W      Last Day class and **Lab 9** as our last lab on communication  
 Oral Presentation/Report (90 seconds for each student)  
**Written Study/Research Project Due. Everything DUE**  
**and a Comprehensive Test (Optional)**
- 05/04 M—5/08 **Final Exam Week**

