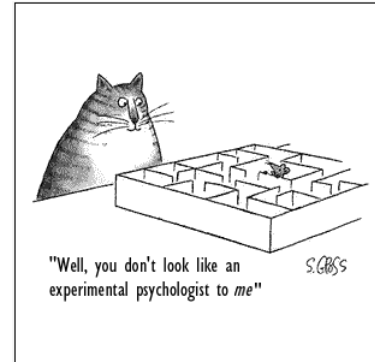


Psychology Senior Thesis

PSYC 485

Spring 2010

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Course Description:

In this course, students will acquire and utilize the skills involved in conducting and reporting empirical research in psychology. These skills include forming of hypotheses, designing research to test those hypotheses, analyzing the resulting data, and writing a complete report of the research results following APA guidelines. This is the Department of Psychology's capstone course, designed to foster and evaluate the student's fundamental understanding of psychology as an empirical research science. Prerequisite: PSYC 484.



Required texts and reserve articles:

American Psychological Association (2009). *Publication manual of the American Psychological Association* (6th edition). Washington, DC: American Psychological Association.

American Psychological Association (2002). *Ethical Principles of Psychologists and Code of Conduct*. Washington, DC: American Psychological Association. (download from APA Web site <http://www.apa.org/ethics/>)

Mitchell, M. L., Jolley, J. M., & O'Shea, R. P. (2004). *Writing for psychology*. Belmont, CA: Wadsworth/Thomson Learning.

Psychology Department Participant Pool Policies and Procedures (rev 08-01-2008). Download from <http://www.shepherd.edu/psychweb/participation.html>

The following materials are on reserve at the library:

Abelson, R. P. (1995). *Statistics as principled argument*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers. We'll use chapter 1.

Martin, D. W. (1996). *Doing psychology experiments* (4th edition). Pacific Grove, CA: Brooks/Cole Publishing Co. We'll use chapters 3 and 4.



Tentative Semester Schedule:

Week	Date	Topic	Readings	Assignments
1	01/12	Syllabus		
	01/14	Participant Pool	Participant Pool Policies	Design summary form
2	01/19	Research ethics	Martin chapters 3-4; APA Ethical guidelines	
	01/21	Research ethics		Progress report
3	01/26	Department assessment exam		
	01/28	Statistics review	Abelson, chapter 1	Progress report
4	02/02	Statistics review		
	02/04	Statistics review		Progress report
5	02/09	Statistics review		Correlation write up
	02/11	Statistics review		Progress report
6	02/16	Statistical analysis plans		Single sample t write up
	02/18	Statistical analysis plans		Progress report
7	02/23	Statistics presentations		
	02/25	Statistics presentations		Written statistics plans, Progress report
8	03/02	Introduction to writing research reports	Mitchell et al, chapters 1 and 6	Indp. t write up
	03/04	No class meeting		Progress report, example results section
9	03/09	APA format, writing research reports – introduction section	<i>Publication Manual</i> ; Mitchell et al, chapter 3 and 5	Dep. t write up
	03/11	APA format, writing research reports – introduction section	<i>Publication Manual</i> ; Mitchell et al, chapter 3 and 5	Progress report
Spring Break				
10	03/23	APA format, writing research reports – methods section	<i>Publication Manual</i> ; Mitchell et al, chapter 3	ANOVA write up
	03/25	Introduction outlines		Progress report
11	03/30	APA format, writing research reports – results section	<i>Publication Manual</i> ; Mitchell et al, chapter 3	
	04/01			Progress report
12	04/06	APA format, writing research reports – discussion section	<i>Publication Manual</i> ; Mitchell et al, chapter 3 and 7	
	04/08			Progress report
13	04/13	Poster presentation guidelines		
	04/15	Individual consultations		Progress report
14	04/20	Poster presentations in the Rumsey Room from 6:00 to 8:00 pm (no class meeting)		
	04/22	Spring weekend recess		
15	04/27	Individual consultations		
	04/29	Final Papers Due – follow submission guidelines below		
MFAT Administration is Thursday, May 6 from 9:00 to 11:00				

Thesis Project:

In PSYC 484 Directed Readings you developed a proposal for a research project. In PSYC 485 you will now conduct the research you planned. The final product of this class is to be a paper that reports on the research you have done. This project is the capstone of your experience as a Psychology major at Shepherd University. It should draw on *all* of the knowledge you have acquired (in psychology and in other disciplines) and should be the best work you are capable of doing. While all of the assignments in this class relate in one way or another to your thesis project, the following assignments are the ones most directly relevant.

Design Summary Forms

During the first week of class you should submit a copy of the design summary form on page 11 of this syllabus. It should summarize the final proposal you prepared for PSYC 484. These forms are for my reference only and I will not be grading them per se. You will earn full credit for the assignment if you simply turn in the completed form.

IRB forms

You should have already completed the Shepherd University forms for the review of research using human participants. If you have not yet received approval you should make revising the forms your top priority. Remember, a complete packet for submission must include 1) the Shepherd IRB forms, 2) a consent form, and 3) a debriefing form. These will be reviewed by members of the Psychology department faculty acting as an IRB. ***You may not collect any data until this step is completed and the approved forms returned to you.***

The IRB forms are available from <http://www.shepherd.edu/irbweb/> and a template for your consent form and a sample debriefing from <http://webpages.shepherd.edu/LDAILY/PSYC485/Materials.html>.

Psychology Department Participant Pool

In the past, students in Senior Thesis have had a difficult time obtaining adequate sample sizes. To address that situation, the Psychology Department has implemented a Research Participant Pool. Every student in PSYC 101 must participate in 2 hours of research conducted by either psychology faculty or psychology students under the mentorship of a faculty member. That pool is, therefore, open to you. The policies governing use of the pool and all required forms can be found at <http://www.shepherd.edu/psychweb/participation.html>.

Ethics Compliance

You need to always keep in mind that your participants are real people with real feelings and that you have an ethical obligation to avoid harming them and to mitigate any harm you may inadvertently cause. You are, therefore, required to adhere to the APA Ethical guidelines as they relate to research. You are likewise required to adhere to the Policies and Procedures of the Psychology Department Participant Pool should you elect to use the pool. Fifteen points of your final grade for this course are based on your compliance with the ethical guidelines. If you follow them you earn the 15 points. If you violate the guidelines even once (barring the gravest of emergencies) you lose the 15 points.

By the time you begin collecting data your project will have been reviewed for ethical problems, so if you received approval and you collect your data following the protocols you submitted you should be ok. The major problems that we've encountered in the past are 1) researchers making appointments with participants and then not showing up and 2) researchers not turning in credit forms in a timely manner (or not at all). Both of those could result in a student not receiving appropriate credit for participation which could cause that person to drop a letter grade in Intro. That is a violation of the "do no harm" principle of

the APA Ethics code. If you do that you will lose the 15 points. In a like manner, if you make an appointment to test a participant (whether that person is part of the pool or not), you must show. ***Failure to keep a scheduled testing appointment will result in the loss of the 15 points.***

Statistical analysis plans

In the seventh week you should come to class prepared to discuss for approximately 10-15 minutes how you plan to analyze your data. It is important to know before you collect data how you will analyze them. It is possible to devise a research study that yields data that we currently have no techniques to analyze. You should also note that I am not a fan of reporting statistics for statistics' sake; as discussed in the Abelson reading the statistics you report in your paper should serve some important purpose in your narrative or they shouldn't be there. You will turn in both a written plan and do a 10 to 15 minute presentation of your plan to the class. Your plan should include the following elements: 1) a clear statement of the research hypothesis, 2) a brief description of the methods you will use to test the hypothesis (including identification of all manipulations and measures), 3) the statistical hypothesis, and 4) the test(s) you plan to use. A handout will be provided that will assist you in choosing an appropriate test. A significant part of your plan should be your answers to the 4 questions on that handout.

Keep in mind that you must address the reliability and validity of all measures that you plan to use. If you are creating your own measures, your analysis plan should include methods to assess their reliability and validity.

Introduction outlines

There are several things that I expect to occur as you collect and analyze your data. One is that you will continue to review the literature on your topic. The second is that you may learn some things from the Mitchell et al. book that you'd like to incorporate into your paper. Finally, the data will probably not turn out quite the way you expected. In any case, you'll most likely need to rewrite the introduction section of your paper in preparing your final draft.

Before you begin the rewrite, I'd like to engage in an in-class exercise that will help you organize and strengthen your paper. You will prepare an outline of your introduction on a series of post-it notes, one heading or point per post-it. Then, in the 10th week of class, you'll stick the post-its on a piece of poster board in order and present your outline to the class. Your colleagues in the class will then have the opportunity to suggest changes that would improve the logic, flow, and structure of your introduction. Of course you will also have the chance to return the favor.

Poster Presentations

Presentation of your work to your colleagues is an important part of the research process. Often, the initial report of new research is as a poster at a conference. This is a slightly different style of writing and presentation than formal research papers and it is an increasingly important one. In order for you to gain experience with this form of writing, we'll hold a poster session on the evening of Thursday, November 19. I will reserve room in the Student Center for our poster session and I will invite the campus community to come and view your work. Your poster should be prepared according to the guidelines of the Eastern Psychological Association. These guidelines will be distributed and discussed in class.



Thesis Paper:

Your paper should follow the format detailed in the *Publication Manual of the American Psychological Association* (6th edition). We will discuss this format in class and many of the sections of an APA-style paper are addressed in the Mitchell et al text. Please bear in mind that one of the main goals of APA format is the clear, concise communication of your ideas. As a result, not only will you need to focus on the specifics of the format (margins, headings, etc.), you will also need to pay special attention to grammar, spelling, and style. The form that I will use to grade your papers is attached to this syllabus.

Submission guidelines

You will submit two copies of your final paper, one to be graded and returned to you and one for use in Psychology Department assessment. These should be printed in black ink using Times New Roman (or an equivalent serif font) sized at 12 points. They should be printed on plain white paper with no printing on the reverse side. Use 1 inch margins on all sides as specified by APA format. Use either a paper clip or binder clip to hold together the pages of each copy. Do not staple the copies or use folders or plastic report covers.

You should also submit with your paper a completed copy of the checklist included at the end of this syllabus.

Please note the introduction page length (10 to 12 pages) and number of reference (20 to 30) requirements. These are the minimums acceptable: failure to meet either will result in a grade of 0 for the paper.

Quality Standards

Writing. The overall goal of APA format is the clear, concise communication of ideas. Your paper should be the best writing you can produce. It should be thoroughly proof-read and spellchecked prior to submission. For this paper I will be using a “three strikes, you’re out” policy. I understand that mistakes happen, but the purpose of proofreading is to catch and eliminate them. Therefore, I will not accept more than three spelling and/or grammar errors. If I find more than three errors I will stop reading your paper and assign it a grade of 10 points (the final paper is worth 40 points).

Sample Size. A large part of the quality of your final paper rests on the sample you obtain. We’ve addressed the sampling method in PSYC 484, so that should not be an issue as long as you follow your plan. The other aspect of your sample that is important is the sample size. Obtaining large enough samples in the past has been very difficult, but the department has now implemented a participant pool (see above). So, obtaining an adequate sample size should no longer be an issue for most students. You will be giving a desired sample size on the Design Summary early in the semester. You must meet that goal. Failure to do so will result in ½ letter grade reduction in the grade on your final paper.

Practice Results Sections

To practice presenting results in APA format you will write a series of 5 practice results sections. Each will use a different statistical analysis. You will be provided an SPSS data file to use for each results section. These files can be obtained from the class Sakai site. For each, you will analyze the data as if you had done the research and then you will report your findings. More information on writing results sections will be provided in class.

Example Results Section

When completing an unfamiliar task it is helpful to have a model to follow. For most of you, writing a results section is an unfamiliar task. While the practice results sections may help, a well-written professional example would be better. As a result, you will find one. To complete this assignment you need to find an article that uses the same analysis that you plan to use and turn in a photocopy of the results section only. Attached to that copy should be a sheet of paper with your name and the full APA style citation of the article.

Progress Reports:

Most weeks, on Thursday, you will submit a written progress report. This report should use the form provided at the end of this syllabus. You should copy the form and fill in the appropriate information. These reports may be done by hand. In your report you should mention your thesis related activities (with the exception of specific class assignments) of the past week. If you have read articles, summarize them, if you investigated possible measures for your project, discuss the strengths and weakness of each and whether you plan to use them or not. If you wrote part of your paper, summarize what you wrote. Progress reports are due to me (not under my office door or in my mailbox) before the end of class.

Please do not attach class assignments, materials you would like me to review and return quickly, or other such materials to your progress reports.

Class Participation:

As mentioned previously, I am conceiving of this class as a research group. Such groups only function effectively if each and every member contributes to the discussions and conducts themselves in a professional manner. Accordingly, 10 points of your grade in this class will depend on your participation in the class. In terms of our class discussions you should 1) be prepared to discuss class topics by having completed the assigned readings, 2) take part in class discussions with comments that are relevant to the topic, and 3) provide feedback to your classmates after class presentations. In terms of professional behavior, I'll point out 2 major issues here: professionals show up to meetings (class) on time and they complete work by deadlines. Other issues will be discussed in class or elsewhere on this syllabus.

Department Assessment:

The Psychology Department, like all departments on campus, is required to engage in program assessment. The purpose is to determine whether the Department is meeting its stated goals. We will be engaging in two assessment activities. The first is a department examination. This is a comprehensive 70 question test of your general knowledge of psychology. The second assessment activity is the Major Field Achievement Test. This test will be administered during the final examination period for this class. Your performance on these tests is for assessment purposes only and will not affect your grade in the class, with the following exception. These activities are class requirements. Failure to complete one or both of the tests will result in a grade of incomplete until you complete both. Bear in mind that I will consider scheduling makeups for the department exam with prior approval. Because of the testing procedures established by ETS, the MFAT will be administered only once per semester during the final examination period. *If you miss the MFAT you will have to wait until final exams of the following semester to complete it.*



Mobile Phone Policy:

Cognitive psychology has taught us that learning requires the allocation of attention to the to-be-remembered material and that dividing attention among two or more attention-demanding tasks decreases performance on all of the tasks. Using a mobile phone to engage in any kind of communication is an attention-demanding task and disrupts the classroom learning environment. The Student Handbook prohibits activities that are disruptive in the classroom, therefore use of mobile phones in this class is prohibited. You must turn off your phone when entering the classroom. If you engage in mobile phone use while in class you will lose points equal to 20% of your final course grade per occurrence. If you are concerned about receiving RAVE alerts, I am subscribed to the system and will bring my phone to class. If my phone rings during class time for anything other than a RAVE alert I will award everyone in class that day extra credit points worth 5% of the final course grade.

Attendance:

This class is scheduled to meet in White Hall room 312 on Tuesdays and Thursdays from 11:00-12:15. Because of the highly individual nature of the projects, we will not be meeting as a group for every class period. There is, however, some material that I need to present to all of you and certain of the exercises require presence of the entire group to be beneficial. We will, therefore, be meeting as a group most Tuesdays and Thursdays throughout the semester. You are responsible for information missed during an absence from class and you are responsible for arranging to make up missed material (see page 54 of the University Catalog and the Late Work Policy below). I will call roll at the **beginning** of each class session. **If you are not present when I call roll you will be marked absent for the day.** During the class periods when we are not meeting as a group, I will be available in my office for individual consultations.



Course grade:

There are a total of 115 points that can be earned in this course. Your design summary will count for 2 points. The practice results sections are worth a total of 10 points (2 points each). Your written statistical analysis plan and your presentation of that plan are worth 5 points each. The example results section is worth 3 points. Your introduction outline is worth 5 points. There are 12 progress reports; together they are worth 10 points. Your class participation is worth 10 points. The poster is worth 10 points and your thesis paper itself is worth 40 points. Your compliance with the ethical guidelines is worth 15 points. Your final grade for the course will be based on the total number of points you earn. Specifically, the values are 103.5-111.5.0 = A, 92.0-103.4 = B, 80.5-91.5 = C, 69.0-80.4 = D, below 69 = F.



Late Work Policy:

Please note: I expect, perhaps as a result of my management background, your best performance on exams and things turned in when they're due. I'll help you prepare for your assignments as much as possible before they're due, but when the time comes, I expect you to be prepared and to have your work done. All assignments have a due date and I **will not** accept late work without prior arrangements. If you know in advance about any situation that would interfere with your ability to meet a deadline (e.g., excused sporting or other campus events, scheduled business travel), see me as soon as possible **before** the deadline. Provided that we discuss it in advance I will be willing to move paper deadlines slightly to accommodate legitimate needs. If something unforeseeable comes up on the day an assignment is due (e.g., a medical emergency, death in the family), please contact me as soon as possible after the incident to discuss possible rescheduling options. Be aware that I will require you to document the cause of any unforeseen rescheduling of exams or papers.



Academic Integrity Policy:

From the 2009-2011 University Catalog, page 56:

Cheating in all its forms, including plagiarism and cheating on visual work, is considered an academic matter to be controlled and acted upon by the individual faculty member.

Students guilty of academic dishonesty on examinations in any course shall receive, as minimum penalty, a grade of F in that course. Such action shall be taken by the instructor, with written notification to the appropriate College administrators. Repeated offenses shall subject the student to suspension or dismissal from the college. Students involved in facilitating the academic dishonesty among others, such as the unauthorized dissemination of examination materials, will be subject to disciplinary action beyond that called for by their own cheating in the course.

In this class, we will work as a group on proposals, plans, and other preparatory work. When writing your thesis paper or poster, however, you must work as an individual. When writing papers, avoid plagiarism. Plagiarism is defined as “the act of stealing and using, as one’s own, the ideas, or the expression of the ideas of another.” This includes not only direct copying of the exact words another author used, but paraphrases of the ideas of another author without properly crediting the original. Plagiarism will, at the least, result in a failing grade for this class and may result in disciplinary procedures as outlined above.



Communication:

My intent is to be as accessible to you as possible. Please feel free to stop by my office any time. I’m available by phone whenever I’m in my office and you can leave voice mail if I’m not. If you need quicker response times (especially on weekends), use email. If you do send me course-related email you should include a subject in the subject line (SPAM filters often delete messages with no subject) and the subject should start with [PSYC 485]. Keep in mind that e-mail is considered professional communication and will be assessed as such when calculating your participation grade. Bad e-mail manners are inappropriate in this class. You would not send an e-mail to your boss that reads, "Plz explain taht thing u said in teh staff meeting beettr? It wasnt clear. thxbye."

NOTICE Email policy

Please be aware that I will not discuss official business (e.g., coursework, course grades, academic advising, etc.) via email unless you use your Shepherd email address. This is mostly for the protection of your privacy. If, for instance, I get an email signed Mary Smith requesting sensitive information about her progress in my class, but it comes from hotgurl46@aol.com, I have no way of knowing whether it is really from Mary Smith or someone else.

Weekly Progress Report

PSYC 485 Senior Thesis

Name: _____ Due Date: _____

This week I completed the following thesis-related activities: *(check all that apply)*

Do not list or attach class assignments.

- Read ____ articles (attach a copy of the first page and a 1 paragraph summary of each article).
- Spent time searching PsycInfo for relevant articles (attach copy of printed abstracts).
- Investigated possible DV measures (attach 1 paragraph summary of each including a description of strengths and weaknesses).
- Ordered, downloaded, printed, or created a DV measure (attach copy of order form if applicable).
- Collected data from ____ participants (attach signed consent forms).
- Entered data into SPSS or Excel, performed data analysis (attach copies of results).
- Wrote ____ pages of draft (attach copies).
- Other (please specify and attach relevant supporting material) _____

For instructor use only. Do not write below the double lines

Thesis Paper Submission Checklist

PSYC 485 Senior Thesis

Name: _____ Date: _____

A checkmark before each item means that you have checked that item and that it meets requirements or has been completed.

- Paper includes all appropriate sections
 - Title page
 - Abstract
 - Introduction
 - Methods
 - Participants
 - Methods and/or Apparatus
 - Procedure
 - Results
 - Discussion
 - References
 - Tables (optional)
 - Figures (optional)

- Checklist from Mitchell et al. chapter 3 (complete and attach copy)

- Checklist from Mitchell et al. chapter 6 (complete and attach copy)

- Checklist from Mitchell et al. chapter 7 (complete and attach copy)

- Paper has been compared to TIPS handout and no errors found

Senior Thesis Evaluation Form

- I. Title Page (1 point)....._____
- _____ Contains all required elements
 - _____ Title summarizes main idea simply and with style
- II. Abstract (2 points)....._____
- _____ Coherent and readable
 - _____ Summarizes paper accurately
- III. Introduction (10 points)....._____
- _____ Coherent and readable
 - _____ Follows correct citation style
 - _____ Literature review thorough
 - _____ Length appropriate (10-12 pages)
 - _____ Introduction builds logically to the hypothesis
 - _____ Statement of the hypothesis/research question is clear
- IV. Methods/Participants (3 points)....._____
- _____ Coherent and readable
 - _____ Sample selection appropriate to research question
 - _____ Sample size appropriate
 - _____ Sample size stated on design summary achieved (-2 points if not)
- V. Methods/Materials/Apparatus (3 points)....._____
- _____ Coherent and readable
 - _____ Appropriate to research question
 - _____ Reliability and validity considered for all measures
- VI. Methods/Procedure (3 points)....._____
- _____ Coherent and readable
 - _____ Procedure appropriate to research question
 - _____ Free of obvious confounds or flaws
- VII. Results (4 points)....._____
- _____ Coherent and readable
 - _____ Statistics utilized are appropriate for research design
 - _____ Tables and/or figures (if included) are properly included and in correct format
- VIII. Discussion (10 points)....._____
- _____ Interpretation supported by results
 - _____ Results placed in larger context of the literature
 - _____ Follows correct citation style
- IX. References (4 points)....._____
- _____ Reference list in correct format
 - _____ Reference list matches text citations
 - _____ Appropriate number of references (20 to 30)
 - _____ Appropriate quality of references (most from peer-reviewed journals)
- Total (of 40 points)....._____

Research Design Summary

Senior Thesis PSYC 485

1. Research Design (check one)

- Experimental
 Quasi-experimental
 Correlational
 Other (specify) _____

2. Variables

A. For experiments only

Independent variable (s) (list IV's and how each will be manipulated. For each IV indicate whether it is a between subjects or within subjects variable)

Dependent variable (s) (List DV's and how each will be measured)

B. For quasi-experiments

Quasi-IV's (List quasi-IV's and how groups will be selected)

Dependent variable (s) (List DV's and how each will be measured)

C. For correlational studies

List the predictor variable and how it will be measured

List the criterion variable and how it will be measured

D. For all studies

Random variables (you must list at least 2)

Control variables (you must list at least 2)

3. Hypothesis (the hypothesis should posit a specific relationship between the variables listed above)

4. Sample size (attach a table justifying this sample size):

Example Table for Design Summary

Table 1. Studies that justify the sample size selected

Study	Sample Size
Mitchell, Kobluk, and Frazier (1964)	34
Denver, Kobluk, and Frazier (1965)	41
Hassilev, Gottlieb, and Yarbrough (1961)	37
Grammer, Hassilev, and Gottlieb (1986)	54
Griffith (1991) study 1	34
Griffith (2002)	62
Wolfe (1989)	48
Wolfe (1990) study 3	44
Buskin and Batteau (1987)	35
Rush (2003)	61
Romanoff, Romanoff, and Rowe (1989)	70
Rogers (1986)	55
Total	575
Average	67