Lab in Experimental Psychology – Cognition
Psychology 314 Section 001
Spring 2011
Life Sciences 315
Tues/Thurs 8:30-9:45a

Professor
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Office Hours:
Wed 4 – 5p
Thurs 10-11a

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Prerequisites

Introductory Psychology (101), Statistics (304), Research Methods (306), and Cognitive Psychology (250). You must have taken ALL of these classes in order to eligible for 314. A student's lack of appropriate course prerequisites constitutes grounds for being withdrawn from the class at any time.

Materials

I will make extensive use of Blackboard during this course. To logon go to: https://blackboard.luc.edu/webapps/login/ or simply go to the luc.edu homepage, click on Resources>Technology and then Access 24/7>Blackboard and login in with your UNIVERSAL ID and PASSWORD. All the links in this document can be found there so you don't need to type them in.

Required:

Francis, G., & Neath, I. (2007). *CogLab*: Online with Access Code (Version 2.0 – 4th Edition) [Computer Software]. Belmont, CA: Thomson Wadsworth.

We will use this software throughout the semester. Every student must have their own access code. A paper version of the software manual and registration code is available at the Loyola Bookstore. You may also buy a registration code and download the manual at : http://www.ichapters.com/tl1/en/US/storefront/ichapters?cmd=catProductDetail&ISBN=0495502960
You MUST have a registration code for the software by class a week from Thursday (1/27).

Additional readings will be available on Blackboard.

Individual readings of relevant background literature for your research paper will be available through the library or through Professor Morrison.

Recommended (but not required):

American Psychological Association (2010). *Publication Manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.

The 6th edition of the style manual has just been published. If you are planning to stay in academic psychology you should own a copy. There are numerous online resources (search "APA style") to help you in this class and I will also provide one chapter from the Style manual as well.

If you are new to using Microsoft Excel you may find these tutorials helpful:

http://www.baycongroup.com/el0.htm

Course Description and Goals

Experimental methods allow psychologists to move beyond mere speculation and intuition to build theories of how people think based on the scientific method. You have previously learned about many of these theories and perhaps a few of the methods in your Cognitive Psychology course. During this course you will further your skills to design experiments to answer your own questions. To meet this goal, in this course you will participate in a variety of experiments used by cognitive psychologists to address questions about attention, memory and reasoning. You will also learn to analyze these experiments and practice presenting your results in the ways commonly used by experimental psychologists.

It is my intention to make this a laboratory course in the strictest sense. That is, during many of the class periods you will be required to take part in various data-gathering exercises. During these class periods you will take measurements on yourself and your classmates that tap underlying cognitive processes. The nature of these measurements and the processes that are tapped should become clear to you as the course progresses. It is my intention that you leave the course with at least some insight into the steps taken by cognitive psychologists when they perform experiments, and that you learn some of the basics of data management and analysis as well as presentation. This is intended to be a *skills* course rather than a *content* course, although I do hope that you learn something about cognitive processes along the way.

In order to prepare you for particular labs, it will be necessary for at least some class time to consist of lectures in which I will attempt to provide the necessary background material for the laboratories and completion of lab assignments. It should be understood that this is <u>not</u> intended to be a survey course in Cognitive Psychology. A few topics will be covered in depth, while many areas that <u>could</u> be covered here will be ignored.

Being able to effectively communicate is important in every vocation, but it is critical in science because the product of science is simply shared information. If you can't clearly share information with others it's almost like it doesn't exist. Thus, it is critical for experimental psychologists, like other scientists, to learn how to effectively communicate their results via both written and oral means. We will practice both things in this course and we will also revisit how to find out what other psychologists are doing through both computer-based literature searches (psycINFO) and reading from the primary literature.

Lastly, I want this course to be VERY practical and empower you with basic critical thinking and computer skills that will serve you well regardless of your future academic and professional endeavors. Thus, we will spend time making sure everyone knows how to work with data sets in Microsoft Excel including basic statistical calculations. You will also learn how to present your results visually, by using plots and figures. Lastly, you will be (re)introduced to SPSS, an industry standard statistics tool and will practice using it to analyze the types of data cognitive psychologists routinely work with.

Expectations

1. Academic conduct: All students are expected to abide by the academic integrity policies outlined in the Loyola University Undergraduate Studies Catalog (e.g., online information at). Each individual student is expected to complete his/her work in the course in an honest and ethical manner. Furthermore, you may not submit a paper or assignment for this class that has already been submitted by you in another class. All forms of academic misconduct (including but not limited to

cheating; plagiarism; tampering with materials, grades, or records; aiding in academic misconduct) will not be tolerated, and acts of cheating and plagiarism will be punishable by failure in the respective assignment/quiz. In addition, university policy states that instructors must report all forms of academic misconduct to their departmental chairperson. The chairperson is required to report all forms of academic misconduct to the dean's office, and all forms of academic misconduct are recorded. The administration may impose additional sanctions against the student including expulsion from the university. The consequences of academic misconduct go beyond the imposed sanctions. For example, consider the following process for application to medical or law school and how these schools would use records of academic misconduct in their decision to accept or reject applicants. As part of a general policy in the selection process, medical and law schools contact the administration at the applicant's undergraduate institution to inquire about instances of academic misconduct. Any record of academic misconduct on the part of the applicant is reported to the medical or law school, which would then likely translate into a rejection.

An additional note about plagiarism: In writing assignments, plagiarism can take a number of forms, and engaging in any form will result in a failure in the assignment. The following are examples of plagiarism:

- purchasing or using a pre-written paper and submitting it as your own
- rewriting, revising, or paraphrasing another person's paper and submitting it as your own
- having another person write or research a paper for you, with or without payment
- copying any amount of material from a published sources (e.g., a book, article or other printed source, the internet, CD or DVD, or any audio or video source) without giving proper recognition

As such, there are instances where plagiarism is deliberate, and there are instances where plagiarism may be unintentional, such as when a student fails to cite a source of information properly. Following are some tips to help avoid instances of unintentional plagiarism. PLEASE CONTACT ME IF YOU HAVE ANY QUESTIONS ABOUT PLAGIARISM.

For **ALL** written assignments, make sure you use your own words; **NEVER** copy material from a source and portray those words as your own.

- When you take a quote from an article, book, or other source, you must cite the name(s) of the author(s), year of publication, and page number(s). For example: Crawley, Anderson, Wilder, Williams, and Santomero (1999) suggest that preschoolers' comprehension of televised material increased with repeated exposure because "invested mental effort would increase as children became more familiar with the program's formats and demands" (p. 636).
- When you summarize or paraphrase a result or multiple consistent findings, you need to give proper recognition to the source(s) by citing the name(s) of the author(s) and publication year(s). For example: Preschoolers' comprehension of televised material increased with repeated exposure because they exhibited greater mental effort as the familiarity of the program increased (Crawley, Anderson, Wilder, Williams, & Santomero, 1999).

An excellent source of information on how to avoid plagiarism was prepared by the university English department and may be found here (http://www.luc.edu/english/writing.shtml#source) Your papers may be submitted to Turnitin (www.turnitin.com), a plagiarism detection service.

2. You are expected to attend every class and be prepared to discuss the assigned readings. Many of our class goals are dependent on your participation in in-class activities. Your success, as well as the success of your classmates is thus dependent on your presence and active participation. To enforce

this expectation we will take attendance every day and this will be a part of your grade (see below). If you come to class more than 15 minutes late or leave more than 15 minutes early this will count as a half absence for that day.

Students who wish to observe their religious holidays need to notify me within the first two weeks of the semester of the date(s) when they will be absent so that course accommodations can be made. If you do not do this these absences will be recorded and counted towards your grade.

Student athletes are responsible for providing their travel schedule to me within the first two weeks of class or these absences will be recorded and counted towards your grade. You will be responsible for all work missed during your absence.

Extended absences from class because of severe illnesses or family or personal emergencies may keep students away from class for extended periods. Such situations will be resolved on a case-by-case basis. Students who are absent from a significant number of classes due to one of these causes may want to consider taking the course at another time.

3. A significant way you will be exposed to new information in this course is through regular reading assignments. Assigned readings must be read BEFORE the class for which they are assigned. As you read try to outline or concept map the information you are reading. Also write down questions you have about the material and questions based on the material you can ask each other**.**

4. Class participation and discussion are mandatory for all students. I expect you to participate verbally in class by asking and answering questions and contributing to discussion. I also expect you to participate in in-class activities including various group activities.

5. I also expect you to maintain respectful behavior towards all course members as consistent with the Loyola Student Promise (http://www.luc.edu/judicial/thepromise.shtml). Please do not talk when others are speaking, or interrupt during discussion. Please consider other's perspectives and try to be constructive when providing feedback and critiques. **We will all (including the professor and TA) turn off our cell phones at the beginning of class. If your phone rings during class please gather your belongings and leave for the day. This will count as an absence.** Reading email or instant messaging on your phone or on a computer is also not appropriate during class. Please focus your attention on what is happening in class and not on things outside of class.

6. A major component of your grade will be several written assignments. I expect you to turn in these assignments on time and write them thoughtfully, using standard English, APA style and correct spelling. Please do not write your assignment as if it was a text message, use full sentences with proper punctuation and refrain from using slang. All written assignments must be typed and will be submitted electronically. Copying your classmates' work or handing in a paper, that copies anyone else's work including sources you may find on the Internet is grounds for immediate assignment failure and disciplinary action. See item 1 for information about plagarism and academic dishonesty.

7. All written and other computer assignments in this course will be submitted electronically via Blackboard. Assignments will likewise be returned to you via Blackboard and the grade will be posted in your grade book there. I will make extensive use of Blackboard during this course. To logon go to: https://blackboard.luc.edu/webapps/login/ or simply go to the luc.edu homepage, click on Resources>Technology and then Access 24/7>Blackboard and login in with your UNIVERSAL ID and PASSWORD. All the links in this document can be found there so you don't need to type them in. All assignments will be stored electronically according to departmental/university policy, and then they will be disposed preserving confidentiality.

8. Late assignments and/or papers will be graded down according to the number of days that the paper is late, with the exception of unforeseen emergencies and extenuating circumstances with documentation and only at the discretion of the instructor. **There will be a deduction of 10% of the total possible points for each day that the paper or assignment is late (e.g., 10% point deduction if the paper is one day late, 20% point deduction if the paper is two days late, and so on).** Assignments are due at the beginning of class. Thus if you submit the assignment to Blackboard after class or later that day it will be considered 1 day late. Thus, please attempt to submit the assignment the night before class. PLEASE observe the deadlines for assignments and papers.
9. General e-mail policy: I reply to e- mails within 1 to 2 business days, with the exception of when I am away on university business. Typically I will check class email first thing in the morning and around 6p. Please make sure you spell my e-mail address correctly (rmorrison@luc.edu). **To ensure a timely response please put psyc314 in the subject line of the email.**
10. Students with disabilities who require accommodations for access and participation in this course must be registered with the Services for Students with Disabilities (SSWD) office. Please contact SSWD at 773-508-7714 (http://www.luc.edu/sswd/index.shtml), and see me immediately. All students with special needs are expected to fulfill all course requirements.

Assignments & Assessment

1. ***Participation and Attendance (30pts).*** As mentioned previously it is essential you attend class every day. You are also expected to participate in class discussions, ask and answer questions, and do in-class activities. From time to time you will be asked to work in small groups, including for your Poster presentation. You are also expected to read assigned readings before class. To ensure that this happens, 30% of your grade will be made up of attendance, participation and short-answer pop quizzes on reading material and previous lecture material.
2. ***Assignments (40pts).*** Course assignments will be of two types.
    a. First, a major course objective will be to learn the skills of data management, analysis, and presentation for the types of results experimental psychologists, and particularly cognitive psychologists, typically encounter. Thus, you will have a series of in-class and take-home assignments that will require you to use a number of different software packages including Microsoft Excel and PowerPoint and SPSS. These assignments will be distributed via Blackboard and typically will be due at the beginning of the next class period and should be submitted to Blackboard. There will be two of these assignments. The first will be worth 4pts and the second 6pts.
    b. Second, another major course objective is for you to practice writing the various sections of an APA style research paper. During the semester, you will be required to write one introduction, methods, results, discussion section. Each assignment will be for a different experiment that you will have participated in. The introduction and discussion sections will require some literature searching and a reference section. The results section will require a detailed statistical analysis. You will need to write an APA style abstract for each of these. I expect you to turn in these assignments on time and write them thoughtfully, using standard English, APA style and correct spelling. Please do not write your assignment as if it was a text message, use full sentences with proper punctuation and refrain from using slang. All written assignments must be typed and will be submitted

electronically. Copying your classmates' work or handing in a paper which copies anyone else's work including sources you may find on the Internet is grounds for immediate assignment failure and disciplinary action. See item 1 for information about plagarism and academic dishonesty. These assignments will be 7 to 8pts each.

3. ***Final Paper (15pts)***. You are to choose one of the class experiments, for which you wrote either an introduction, methods, results, or discussion section, and complete the rest of the paper including abstract, introduction, methods, results, discussion, references, figures, tables. A rough draft of this paper is due approximately one week before the final version is due. This assignment is due on the last day of class.
4. ***Poster Presentation (15pts).*** The major way that particularly young investigators share their research is through poster presentations at scientific meetings (e.g., APA, APS, Psychonomics, Cognitive Science, etc.). A poster is just that, typically a 3 x 6' piece of paper that contains the basic elements of an APA format paper, but in very abbreviated format. Thus, it will contain some bullet points, but emphasis is usually placed on figures. When you present a poster, you put it up and stand there while people come walking past. Typically you have a 10min "elevator speech" ready to tell people about your work. Usually you start by asking them about whether they are familiar with this kind of work, so you can tailor your presentation to them, or focus on what they might find interesting. This takes a lot of practice! I've done maybe 40 or so posters now and I'm still practicing! So for this assignment you will work with several other classmates and prepare a poster in PowerPoint. The poster will be sized just like it would be for a meeting (I'll provide a template). To save cost/paper we will use LCD projectors to project them on the wall. Each person in the group will then present their poster to half the class. The "poster session" will be during the final exam time.

Grading. Final Grades will be assigned as follows:

A:	90-100%
B+:	87-89.9%
B:	80-86.9%
C+:	77-79.9%
C:	70-76.9%
D+:	67-69.9%
D:	60-66.9%
F:	less than 60%

WEEK	DATE	REMINDERS	DUE
1	1/18	First Class	
	1/20	Lecture on Experimental Design	Student Questionnaire
2	1/25	Work on Assignment 1 in class	
	1/27	Experiment A data collection MUST HAVE A COGLAB REGISTRATION!	Assignment 1
3	2/1	Lecture on Experiment A	
	2/3	Work on Assignment 2 in class	
4	2/8	Experiment B data collection	Assignment 2
	2/10	Lecture on Experiment B	
5	2/15	Lecture on APA Style	
	2/17	Work on Assignment 3 in class	
6	2/22	Experiment C data collection	Assignment 3
	2/24	Lecture on Experiment C	
7	3/1	APA Style: Methods	
	3/3	Work on Assignment 4 in class	
	3/4	Midnight Friday	Assignment 4
8	3/8	Spring Break – NO CLASS	
	3/10	Spring Break – NO CLASS	
9	3/15	Experiment D data Collection	
	3/17	Lecture on Experiment D	
10	3/22	APA Style Introduction	
	3/24	Work on Assignment 5 in class	
11	3/29	Experiment E data collection	Assignment 5
	3/31		
12	4/5	APA Style Discussion	
	4/7	Lecture on Experiment E	
13	4/12	Work on Assignment 6 in class	
	4/14	Work on Assignment 6 in class	
14	4/19	NO CLASS	Assignment 6
	4/21	Presentation on Conference Posters	

15	4/26	Work in groups on final paper and poster	
	4/28	Work in groups on final paper and poster	
	4/29	Midnight Friday	Final Paper Due
	5/6	Noon Friday	PowerPoint Poster Due
Final	5/7	Poster Session Saturday 9am	

DATES ARE TENTATIVE. ASSIGNMENT DUE DATES MAY CHANGE DURING THE SEMESTER! I will communicate changes both in class and also on Blackboard.

17 January 2011