

PSY1020 Experimental Design 2006-2007 Term 2

Instructor:	Tutors:	
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Course Objectives: The overall goal of this course is to teach you how to design valid experiments and to analyze and interpret the data obtained in those experiments. In attaining this goal, you will develop skills that will have an application both during the rest of your academic career and beyond. For example, these skills will help you to critically evaluate empirical and theoretical claims made in the psychological literature. In addition, these evaluative skills should serve you well in domains ranging from selecting the best laundry detergent to deciding whether to support a change in government policy.

Required Textbooks: There are three required textbooks for this course (two of which were used in Psy1010). You are strongly encouraged to purchase or borrow copies of the textbooks. If you do not want to purchase the textbooks, please ensure that you have ready access to the material in them.

Aron, A., Aron, E. N., & Coups, E. J. (2006). *Statistics for psychology (4th ed.)*. Upper Saddle River, NJ: Pearson Prentice Hall.

Green, S. B., & Salkind, N. J. (2005). *Using SPSS for Windows and Macintosh (4th ed.)*. Upper Saddle River, NJ: Pearson Prentice Hall.

Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2006). *Research methods in psychology (7th ed.)*. New York, NY: McGraw-Hill.

Additional References: Additional material not listed here may be placed on reserve in the Architecture Library or in the course reading rack next to SB349. If this occurs, an announcement will be made in class and the references will be provided on CUforum.

Course Evaluation: Your performance will be evaluated by Homework (20%), Midterm Examination (30%), and Final Examination (50%).

Homework: There will be four homework assignments. The weight and due date of the completed homework will be announced when the assignment is handed out. The objective of the assignments is to familiarize you with the various statistical procedures. You should learn to apply the technique appropriately, interpret the results accurately, and present the findings clearly.

Examinations: The purpose of the examinations is to assess your understanding of the course materials presented in lectures, tutorials and readings. The focus is appropriate application of statistical computations and procedures and interpretation and presentation of results and findings. The examinations aim at testing your understanding and application rather than rote memory. You are allowed to bring one page of crib sheet (A4 size, double-sided) for the midterm and two pages for the final examination. The mid-term examination will cover materials (both in class and on the text books) presented up to that point whereas the final examination will be cumulative that all materials presented in the entire course will potentially be included.

Lecture and Tutorial Schedules: Lectures are officially scheduled on Friday, and the two tutorials are officially scheduled on Tuesdays and Wednesdays. Depending on course arrangement (e.g., teaching progress, class [tutorial] size, and midterm schedule) and room availability (e.g., availability of the computer laboratory), we may have to swap lecture and tutorial and even schedule additional lectures and tutorials. Therefore, although a student needs to attend only one of the two tutorials each week, you should make yourself available for both tutorial timeslots. However, any changes in schedules will be announced at least two weeks ahead of time.

Wk	Class	Date	Topic	Reading Assignment		
				RMiP	SfP	SPSS
1	Tutorial	Tue, 9 Jan // Wed, 10 Jan	No Tutorial			
	Lecture	Fri, 12 Jan	Course Introduction			
2	Tutorial	Tue, 16 Jan // Wed, 17 Jan	No Tutorial			
	Lecture	Fri, 19 Jan	Introduction to Experimental Design	Ch. 1, 2 & 7		
3	Tutorial	Tue, 23 Jan // Wed, 24 Jan	Deciphering Research Findings and Evaluating Research Proposals (group 1)			
	Lecture	Fri, 26 Jan	Research Ethics: Data Collection, Analysis, and Reporting	Ch. 3 & 14		
4	Tutorial	Tue, 30 Jan // Wed, 31 Jan	Deciphering Research Findings and Evaluating Research Proposals (group 2)			
	Lecture	Fri, 2 Feb	Independent Groups Designs (One way between-subjects ANOVA)		Ch. 9	L. 24 pp. 176-184

Wk	Class	Date	Topic	Reading Assignment		
				RMiP	SfP	SPSS
5	Tutorial	Tue, 6 Feb // Wed, 7 Feb	No tutorial			
	Lecture	Fri, 9 Feb	Two (or more) Factor Designs (Two way between-subjects ANOVA)	Ch. 9	Ch. 10	L. 25 pp. 185-206
6	Tutorial	Tue, 13 Feb // Wed, 14 Feb	2 x 2 ANOVA Tutorial [Homework 1 on Research Methods and ANOVA]			
	Lecture	Fri, 16 Feb	Lunar New Year (Feb 16-22)			
7	Tutorial	Tue, 20 Feb // Wed, 21 Feb	Lunar New Year (Feb 16-22)			
	Lecture	Fri, 23 Feb	Two (or more) Factor Designs	Ch. 9	Ch. 10	L. 25 pp. 185-206
8	Tutorial	Tue, 27 Feb // Wed, 28 Feb	Two (or more) Factor Designs Tutorial			
	Lecture	Fri, 2 Mar	Midterm Examination			
9	Tutorial	Tue, 6 Mar // Wed, 7 Mar	Feedback on Midterm Examination			
	Lecture	Fri, 9 Mar	Repeated Measures Designs (One way within subjects ANOVA)	Ch. 8		L. 28 pp. 228-237
10	Tutorial	Tue, 13 Mar // Wed, 14 Mar	Repeated Measures Tutorial			
	Lecture	Fri, 16 Mar	Mixed Designs (Within and between factors in same design)			
11	Tutorial	Tue, 20 Mar // Wed, 21 Mar	Mixed Designs Tutorial [Homework 2 on Mixed Designs]			
	Lecture	Fri, 23 Mar	ANCOVA			L. 26 pp. 207-217
12	Tutorial	Tue, 27 Mar // Wed, 28 Mar	ANCOVA Tutorial			
	Lecture	Fri, 30 Mar	MANOVA			L. 27 pp. 218-227
13	Tutorial	Tue, 3 Apr // Wed, 4 Apr	MANOVA [Homework 3 on MANOVA]			
	Lecture	Fri, 6 Apr	Easter (Apr 6-9)			
14	Tutorial	Tue, 10 Apr // Wed, 11 Apr	No Tutorial			
	Lecture	Fri, 13 Apr	Multiple Regression			L. 33 pp. 283-297
15	Tutorial	Tue, 17 Apr // Wed, 18 Apr	Multiple Regression [Homework 4 on Multiple Regression]			
	Lecture	Fri, 20 Apr	Overview of Statistical Methods & Research Design		Ch. 15	

RMiP = Research methods in psychology, SfP = Statistics for psychology, SPSS = Using SPSS for Windows and Macintosh.

Plagiarism Policy: Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at <http://www.cuhk.edu.hk/policy/academichonesty/> . Students are required to submit a statement acknowledging that they are aware of these policies, regulations, guidelines and procedures and pledging to be honest in their academic work (see the last page of this syllabus).

Any assignment (i.e., project, essay, or paper) that shows evidence of plagiarism will be marked down severely. In simple terms, plagiarism is copying passages and/or ideas from other sources without referencing those sources. Moreover, when you report someone else's ideas/findings you must put it in your own words and not merely copy full sentences or parts of sentences from the source article. It is your responsibility as a scholar-in-training to cite the ideas and work of others correctly. Please visit the following additional websites for discussions of how to recognize and avoid plagiarism.

<http://www.indiana.edu/~wts/wts/plagiarism.html>

<http://www.hamilton.edu/academic/Resource/WC/AvoidingPlagiarism.html>

Declaration of Academic Honesty

2006-2007
Psychology 1020
Experimental Design

I promise that all assignments submitted to this course across the entire semester will be original except for source material explicitly acknowledged, and that the same or related material has not been previously submitted for another course. I also acknowledge that I am aware of University policy and regulations on honesty in academic work, and of the disciplinary guidelines and procedures applicable to breaches of such policy and regulations as contained in the website <http://www.cuhk.edu.hk/policy/academichonesty/>.

Signature

Date

Name

Student ID

Psychology 1020
Course Code

Experimental Design
Course Title