Psychological Research Laboratory

I) Course information

Course number: PSYB01H3 F
Lectures: Wednesdays, 7:00-9:00 pm Fridays, 2:00-3:00 pm
Computer labs: Fridays, 12:00-1:00 pm ***or*** 1:00-2:00 pm ***or*** 2:00-3:00 pm
Section: L01 2006 F
Place: AC 233
Prerequisites: [PSYA01H & PSYA02H] or (PSYA01Y)

II) Instructor:

Dr. Matthias Niemeier
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Office Hours: Wednesdays, 4 pm – 5 pm and by e-mail appointment.

I received my MA at the University of Hamburg (Germany) and my PhD at the University of Tübingen (Germany). From October 2000 – June 2003 I've been working as a postdoctoral fellow at UofT's Department of Physiology. Since July 1st, 2003 I'm an assistant professor at UTSC.

III) Teaching Assistants:

Bobby Stojanoski & Jun Li

IV) Course coverage and goals

What are we going to do?
In brief, PSYB01 aims at introducing you to the scientific method, specifically those techniques used in psychological research. The course has two goals. The first is to provide you with the skills that you will need to understand and evaluate the research that is / has been done by other people, as well as the basic abilities that are necessary to conduct your own research. Therefore, we will look at which are the tricks that good researchers use, and which traps do they avoid (well, most of the time). The second goal is more general and it concerns critical thinking, not taking everything for granted what other people claim. I am convinced that you already have a good portion of critical thinking, but I believe this course still may contribute to that. The idea is that you will be able to apply your new knowledge in daily life. You may or may not have noticed that in daily life we are more and more confronted with information, correct and incorrect. To sort out which is which, this course will help you. But this is already the start of the first lecture …

How are we going to do it?
Each week we will have a two hours lecture on the general topic of that week. Plus, we will have a one hour "In Focus" session that will pick a specialized topic. – *"But what about the "research LAB"? Isn't this a research LAB course?"* – Here comes the twist: the plan is that you will attend the In Focus sessions only every second week, and every other week there will be a computer lab section instead. The lab sections are a very new thing: since a long time PSYB01 has been taught as a pure lecture course which is

unfortunate because a research methods course is about research *skills*. As we know from memory research our brain stores skills in a special kind of memory, called "procedural memory". This form of memory can't be learned by talking or reading about what is to be learned – it's learning-by-doing. For example when we learn how to ride a bike it doesn't help to read a book about it, no, you have to *do* it. The same is true for research methods. To give you the opportunity to acquire some practical research experience we will have computer sessions that simulate typical research situations. In this way you will be able to gain hands-on experience of different kinds with research in psychology. This will include designing and conducting psychological studies and collecting and analyzing data.

V) Textbook

Required
Title: Research Methods for the Behavioural Sciences. Second edition.
Authors: Frederick J. Gravetter Lori-Ann B. Forzano
Publisher: Thompson Wadsworth
ISBN: 0-534-55811-9

VI) Web page

Intranet: All materials will be available via the intranet. Also, please check on a regular basis for announcements. Go to https://intranet.utsc.utoronto.ca/home.php?login=1

VII) Evaluation

40% **Mid-term test.** Scheduled for **TBA**. Two hours.

60% **End of Term test.** Scheduled for **TBA**. Two hours.

Material on the exams will include text readings, material from the lectures, the In Focus sections and the computer labs. Although the topics covered will overlap, different things may be emphasized in class or in the lab than in the book. Therefore, class and lab attendance is highly recommended. Exams will be non-cumulative.

What if I miss the mid-term?

The only reasons considered valid for missing an exam are
(1) you are not in the physical condition to write an exam as verified by a medical professional,
(2) you are not in the appropriate mental condition to write an exam as verified by a medical or counseling professional, or
(3) it is a University of Toronto recognized religious holiday for a religion you are part of as verified by documentation from an appropriate religious leader.

If you miss the midterm for one of the reasons above, there will be a make-up mid-term scheduled that will be similar in length and difficulty to the original mid-term. (Please note that the policy for missed final exams is different. You would have to talk to the Registrar's Office.)

VIII) Course Policies

For academic regulations (such as UTSC's official grading practices policy, petitions, code of behaviour on academic matters etc.) please refer to the UTSC calendar.

IX) Schedule

The schedule is subject to changes. The most up-to-date schedule will be on the web.

Wk	Day	Topics	Ch
1	**Wed, Sept 13**	***Lecture 1:*** **Welcome; What is the scientific method?**	1
	Fri, Sept 15	***In Focus:*** Getting ideas in research – Group A & B	2
2	**Wed, Sept 20**	***Lecture 2:*** **What are variables and how do we measure them?**	3
	Fri, Sept 22	***Computer lab:*** Psychophysics and faces – Group A	
	Fri, Sept 22	***In Focus:*** How to avoid trouble with sampling – Group B	5
3	**Wed, Sept 27**	***Lecture 3:*** **Research strategies and their validity**	6
	Fri, Sept 29	***Computer lab:*** Psychophysics and faces – Group B	
	Fri, Sept 29	***In Focus:*** How to avoid trouble with sampling – Group A	5
4	**Wed, Oct 4**	***Lecture 4:*** **What is an experiment?**	7
	Fri, Oct 6	***Computer lab:*** To see or not to see – a cognition experiment on change blindness. – Group A	
	Fri, Oct 6	***In Focus:*** Measuring the speed of your nerves and other tricks to get significant results – Group B	
5	**Wed, Oct 11**	***Lecture 5:*** **Between-subjects designs**	8
	Fri, Oct 13	***Computer lab:*** To see or not to see – a cognition experiment on change blindness. – Group B	
	Fri, Oct 13	***In Focus:*** Measuring the speed of your nerves and other tricks to get significant results – Group A	
6	**TBA**	***Mid term test***	1-3,5-8
	Fri, Oct 20	***In Focus:*** Learning experiments – An introduction to Sniffy – Groups A+B	
7	**Wed, Oct 25**	***Lecture 6:*** **Within-subjects designs**	9
	Fri, Oct 27	***Computer lab:*** Conditioning Sniffy, the virtual rat. – Group A	
	Fri, Oct 27	***In Focus:*** Field experiments – the apathetic bystander or the difference between a liquor store and a subway. – Group B	
8	**Wed, Nov 1**	***Lecture 7:*** **Quasi an experiment**	10
	Fri, Nov 3	***Computer lab:*** Conditioning Sniffy, the virtual rat. – Group B	
	Fri, Nov 3	***In Focus:*** Field experiments – the apathetic bystander or the difference between a liquor store and a subway. – Group A	
9	**Wed, Nov 8**	***Lecture 8:*** **Factorial designs and interactions**	11
	Fri, Nov 10	***In Focus:*** Of eyewitnesses and job interviews. – Groups A+B	
10	**Wed, Nov 15**	***Lecture 9:*** **Correlational research strategies**	12
	Fri, Nov 17	***Computer lab:*** Observing infant behaviour. – Group A	
	Fri, Nov 17	***In Focus:*** Single cases in clinical research. – Group B	14
11	**Wed, Nov 22**	***Lecture 10:*** **Descriptive research**	13

	Fri, Nov 24	***Computer lab:*** Observing infant behaviour. – Group B	
	Fri, Nov 24	***In Focus:*** Single cases in clinical research. – Group A	14
12	**Wed, Nov 29**	***Lecture 11:*** **What went wrong with the Stanford Prisoner Experiment?**	4
	Fri, Dec 1	***In Focus:*** The bigger picture – Groups A+B	
	TBA	***Final exam***	4,9-14