Brain Imaging Laboratory (PSYC04H3 S LEC01)

COURSE SYLLABUS – Spring 2012

INSTRUCTORS:

Dr. Andy Lee
Teaching Assistant: Danielle Douglas
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Office Hours and Location: Weeks 1-3, Tuesdays @ 11:30am-1:30pm, Science Wing, Room 521
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Dr. Matthias Niemeier
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Teaching Assistant:

Dr. Anthony C. Ruocco
Office Hours and Location: Weeks 7-9, Tuesdays @ 11:00am-1:00pm in Science Wing, Room 513
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Teaching Assistant: Alex Daros, B.Sc. Email: alexdaros749@gmail.com. Office Hours and Location: Thursdays @ 2:00-3:00pm in Science Wing, Room 513

Class Time and Location: Thursdays @ 1:00-3:00pm in Science Wing, Room 316

Brain Imaging Laboratory is a course designed to familiarize you with cutting-edge techniques used by psychologists to study the neural basis of cognition, perception and motor control. Specifically, you will obtain hands-on experience with data collection, signal processing and statistical analysis for functional magnetic resonance imaging (fMRI), functional near-infrared spectroscopy (fNIRS), electroencephalography (EEG), and transcranial magnetic stimulation (TMS). You will also learn the core principles of experimental designs for brain imaging research and learn how to interpret findings using each of these brain imaging techniques.

Please note: If you have a question for an instructor about a topic covered in this course, please post it on Blackboard so that other students can benefit from reading the instructor's response.

Weekly Topics, Readings and Important Dates

WEEK	DATE	TOPIC
1	January 12	fMRI (Dr. Lee)
2	January 19	fMRI (Dr. Lee)
3	January 26	fMRI (Dr. Lee) **Quiz #1**
4	February 2	EEG (Dr. Niemeier) **Due: fMRI Assignment**
5	February 9	EEG (Dr. Niemeier)
6	February 16	EEG (Dr. Niemeier) **Quiz #2**
	February 23	*READING WEEK (NO CLASS)*
7	March 1	fNIRS (Dr. Ruocco) **Due: EEG Assignment**
8	March 8	fNIRS (Dr. Ruocco)
9	March 15	fNIRS (Dr. Ruocco) **Quiz #3**
10	March 22	TMS (Dr. Niemeier) **Due: fNIRS Assignment**
11	March 29	TMS (Dr. Niemeier)
12	April 5	TMS (Dr. Niemeier) **Quiz #4** **Due: TMS Assignment**
	April 9	Last day of classes and last day for submission of term assignments in S courses.
	April 11	Last day to drop UTSC S courses and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are recorded on transcripts whether course work is completed or not (with a '0' assigned for Incomplete work) and they are calculated into GPAs.

Course Evaluation:

20%   Quizzes
20%   Participation and Attendance
60%   Assignments

Accessibility:

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the Access*Ability* Services Office as soon as possible. I will work with you and Access*Ability* Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC Access*Ability* Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca.

Video and Auditory Recording

For reasons of privacy as well as protection of copyright, unauthorized video or audio recording in classrooms is prohibited. This is outlined in the Provost's guidelines on *Appropriate Use of Information and Communication Technology*. Note, however, that these guidelines include the provision that students may obtain consent to record lectures and, "in the case of private use by students with disabilities, the instructor's consent must not be unreasonably withheld."

Academic Integrity:

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's *Code of Behaviour on Academic Matters* (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

- Using or possessing unauthorized aids.
- Looking at someone else's answers during an exam or test.
- Misrepresenting your identity.

In academic work:

- Falsifying institutional documents or grades.

- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see http://www.utoronto.ca/academicintegrity/).

Grade Scales

NUMERICAL MARKS	LETTER GRADE	GRADE POINT VALUE
90 - 100%	A+	4.0
85 - 89%	A	4.0
80 - 84%	A-	3.7
77 - 79%	B+	3.3
73 - 76%	B	3.0
70 - 72%	B-	2.7
67 - 69%	C+	2.3
63 - 66%	C	2.0
60 - 62%	C-	1.7
57 - 59%	D+	1.3
53 - 56%	D	1.0
50 - 52%	D-	0.7
0 - 49%	F	0.0