Department of Psychology
PSYC 4225H-A: Advanced Cognitive Neuroscience
“Concussion”
WINTER 2014 PTBO

Instructor: Liana Brown (http://people.trentu.ca/lianabrown)
Trent email: lianabrown@trentu.ca
Office Location: LHS C116
Telephone: 705-748-1011 ext. 7238
Office Hours: Wednesday, 10:30-11:30 am or by appointment
Psychology Dept.: LHS C104, 705-748-1011 ext. 7535

Course Description: This course will examine how perception, cognition, and action are influenced by the sensory and movement capabilities of our bodies. This year, the course will examine the mechanisms of concussion and their neurological and psychological consequences. All topics will be approached from a systems-neuroscience perspective.

Course Prerequisite: Prerequisite: Minimum 65% average in completed PSYC courses; PSYC 3015Y (315) or 333; PSYC 3460H (366H) or PSYC – BIOL 3220H (376H); and at least 1.0 additional 3000-level PSYC credit. (PSYC 3015Y will be accepted as a co-requisite if the student has successfully completed 15.0 university credits.) Also listed on Pp. 248-257 in the Academic Calendar 2013 or 2014: http://www.trentu.ca/calendar/

Course Format:
Seminar: Mondays 9:00-11:50 in DNA B110.1
Blackboard: http://www.trentu.ca/mytrent/
PTBO weblink to academic timetable https://scheduler.trentu.ca/AcademicTimetable/Peterborough/FallWinter/

Required Readings: See course outline


http://www.trentu.ca/academicintegrity

Learning Objectives: Successful students will be able to:
1. Synthesize vocabulary, main theories, and concepts relevant to the topic;
2. Understand the rationale behind and limitations on how neuroscience research is conducted in human populations;
3. Present and interpret research studies;
4. Apply results of research to everyday scenarios;
5. Critique primary source research in cognitive neuroscience.

Withdrawal Deadline: Students will have at least 25% of their grades by the final date for withdrawal without penalty – March 7, 2014.

Evaluation
1. Presentation (1 x 25%) 25% Determined in seminar
2. Discussion Papers (2 x 10%) 20% Determined in seminar
3. Verbal participation 20% Weekly
4. Thought notes 10% Weekly
5. Research proposal 1 10% February 12, 2013
6. Research proposal 2 15% April 2, 2013

It is the responsibility of each student to read and accept the due dates outlined on the course syllabus

Explanation of Assignments
Presentation (25%): On one occasion over the course of the semester, each student will be responsible for presenting (20-30 minutes) an assigned reading to the class. It is expected that students will present enough background information to clearly explain the rationale for the study, and that the description of the methods, research, and implications of the study will be well-organized and accurate. Email slides to professor before class (for post-presentation grading purposes only).
Explanation of Assignments

**Discussion Papers and Role of the Discussant (20%)**: On two different occasions, each student will be responsible for leading the discussion of an assigned reading. One cannot be the discussion leader and presenter for the same article. The discussion leader’s role is to read the article carefully (as carefully as the presenter) and assemble a set of questions or issues that he/she believes will stimulate discussion. The discussion leader must also submit a paper that both summarizes the article and describes one or more criticisms or theoretical positions in reaction to the article. Paper format: APA-formatted, 3-5 pages.

**Verbal Discussion Participation (20%)**: This is a discussion-based course, so plan to discuss! Students are expected to be prepared to share a position in reaction to the article and to engage in discussion with the professor and their classmates on a weekly basis.

**Thought Notes (aka Written Participation; 10%)**: The purpose of the thought notes assignment is to help you prepare for the verbal discussion. It’s much easier to participate in a discussion/debate if you’ve thought about the points you’d like to make in advance.

Each week of student presentations in which you are not a presenter or discussant, you will be required to submit a short (one page) set of thought notes on the readings for the week. The thought notes are not article summaries. The thought notes should present the two most critical* points you’d like to make or questions you’d like to ask about the papers. The thought notes must be typed and printed but can be in point-form or numbered. **You must attend class to submit a thought note.**

**Research Proposal Paper (25%)**: Each student will propose a research study to be conducted on any topic related to the course. The paper will define the research question, identify the populations and/or variables to be measured/manipulated, present the hypothesis and the predictions, and finally outline the methods (target participation group(s), apparatus, procedure, design, and proposed statistical analyses). **Draft proposals (3-5 pages) are due February 10 (worth 10% of your grade).** You will receive feedback on your drafts by March 3. **Final proposals (10-15 pages) are due March 31.** Additional details will be provided in class.

Course Policy on Late Submissions

**Homework and papers that are more than one week late will receive a grade of 0.** Documentation will be required to support requests for extensions (see policy below).

WHEN IT COMES TO ASKING FOR EXTENSIONS OR DEFERRALS, TIMING IS IMPORTANT. CONTACT ME (lianabrown@trentu.ca) AS SOON AS YOU KNOW THAT YOU ARE IN NEED. I CANNOT HELP YOU AFTER THE ASSIGNMENT IS DUE OR THE COURSE IS OVER.

Course Policy on attendance

**Attendance is required and will be noted.**

Liana Brown, Ph.D., LHS C116 - E-mail: lianabrown@trentu.ca

1. Email is the best way to contact me. **Please use your Trent email account.** During the week, please allow 24 hrs for a response. Do not expect a response on weekends. Finally, **always acknowledge that you received a response and let me know if your question was answered.** If your question wasn’t answered, try again!

2. If you have a question that requires more than one or two sentence response, come see me during my office hours or after lecture.

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<tr>
<th>Week</th>
<th>Themes</th>
<th>Topic and Readings</th>
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Jan. 13 | Mechanisms of Concussion – Contusions, Hematoma, Swelling & Disconnection |
| Impact, MVA, whiplash, percussion injuries (war), contra-coup, swelling and rotational and translational acceleration/deceleration and disconnection |

Jan. 20 | Mechanisms of Concussion – Protection Strategies |
| Helmets |
| Rule changes |
| Student Presentations Begin This Week |

Jan. 27 | Concussion in Children and Adolescents |
| Signs, symptoms, assessment, special considerations. |

Feb. 3 | Post-concussion syndrome – Pain/Headache, Vestibular |

Feb. 10 | Post-concussion syndrome – Sensory and Motor Sequelae |
<p>| King, Doug; Brughelli, Matt; Hume, Patria; et al. Concussions in amateur rugby union identified with the use of a rapid visual screening tool. Journal Of The Neurological Sciences, 326, 59-63. DOI: 10.1016/j.jns.2013.01.012 |</p>
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<th>Feb. 17</th>
<th>No Class</th>
<th>Family Day and Reading Week</th>
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Mar. 17   Multiple Concussion Syndrome
- CTE
- Second Impact Syndrome


Mar. 24   Rehabilitation and Management
- Rest
- Intervention


Mar. 31   Rehabilitation and Management
- Return to Play/Work Guidelines


University Policies

ACADEMIC INTEGRITY:
Academic dishonesty, which includes plagiarism and cheating, is an extremely serious academic offence and carries penalties varying from a 0 grade on an assignment to expulsion from the University. Definitions, penalties, and procedures for dealing with plagiarism and cheating are set out in Trent University's Academic Integrity Policy. You have a responsibility to educate yourself – unfamiliarity with the policy is not an excuse. You are strongly encouraged to visit Trent's Academic Integrity website to learn more – www.trentu.ca/academicintegrity.

ACCESS TO INSTRUCTION:
It is Trent University's intent to create an inclusive learning environment. If a student has a disability and/or health consideration and feels that he/she may need accommodations to succeed in this course, the student should contact the Student Accessibility Services Office (BH 132, 748-1281, accessibilityservices@trentu.ca) as soon as possible. Complete text can be found under Access to Instruction in the Academic Calendar.

Departmental Policy on Tests, Exams, and Assignments
A. MIDTERMS & FINAL EXAMINATIONS
Midterm examinations for half courses within the Psychology Department are scheduled by the instructor of the course. Midterm examinations for full courses and final examination for all courses are scheduled by the Registrar’s Office. Students are strongly urged NOT to make any commitments (i.e., vacation, job related, or other travel plans) during either the term as a whole or the final examination period. Students are required to be available for all examinations during the periods for which they are scheduled (as published in course syllabi).

B. DEFERRAL OF MIDTERM / FINAL EXAMINATIONS and/or TERM WORK
Extensions of deadlines for completion of assignments or writing of midterms/final examinations may be granted to students on the basis of illness, accident, or other extreme and legitimate circumstances beyond their control. Consideration for deferrals will not normally be granted on the basis of vacation/travel plans or job-related obligations.

C. SUPPORTING DOCUMENTATION
Students should expect that supporting documentation will be required and must be submitted before a deferral is approved. For illness or accident, supporting documentation will take the form of: (1) the Trent University Medical Certificate from Health Services: (http://www.trentu.ca/healthservices/medical.html), or (2) a certificate or letter from the attending physician clearly indicating the start and end dates of the illness and the student’s inability to write an examination, complete assignments, and/or attend classes, as relevant to the particular request. For other circumstances, students should consult the individual Psychology faculty member about acceptable forms of documentation.

Notes
1. Academic Integrity:
For the purpose of interpreting and applying the University policy on academic dishonesty, the Department of Psychology has adopted the following:

   When a student submits a piece of written work in fulfillment of an assignment, he/she implicitly acknowledges the following: a) that she/he is the sole author of the work; b) that the wording and organization of the work, apart from acknowledged quotations, is her/his own; and c) that she/he has not and will not submit this work, either as a whole or in part, to satisfy another course requirement. These basic assumptions will be reasonably interpreted. They do not preclude collaboration between students upon a single project, by prior arrangement with the instructor, for shared academic credit (either for written or oral presentation).

   For an elaboration of the Department’s policy on, and for specific examples of, plagiarism, students should consult p. 178 in the APA (2010) and the sections on academic honesty (pp. 6-8), and appropriate citing and referencing (pp. 135-137, 169) in Mitchell et at. (2010) on reserve in the library. Students who have doubts about what might be considered academic dishonesty are urged to consult the instructor of the course. Ignorance of the University or Department policy does not excuse academic dishonesty. Submissions that fail to meet one or more of these considerations will be subject to procedures laid down in the policy on academic dishonesty as stated in the University calendar.

2. It is the policy of the Department NOT to accept faxed assignments.

3. The same assignment cannot be submitted in more than one course without the prior written permission of all instructors concerned. The written approval must be attached to the work when it is submitted.


5. Please see the Trent University academic calendar for University Diary dates, Academic Information and Regulations, and University and departmental degree requirements.

6. Last date to withdraw from a Winter half-term course without academic penalty in 2012-2013 is March 7, 2014.