SEMINAR IN COGNITIVE PSYCHOLOGY RESEARCH

PSY4173A

Class Outline - Fall 2013

Professor: Andrée-Anne Ledoux, PhD

Contact: The best way to get in touch with me is through e-mail (include “PSY4173 A” in the subject heading): aledoux@uottawa.ca
Office: VNR 2016
Office hours: 11:30-12:45 (by appointment only).

Class schedule: Monday: 08:30 - 10:00
Thursday: 10:00 - 11:30
Vanier Hall Room: 2015

COURSE DESCRIPTION

In this seminar, students undertake an extensive examination of various experimental approaches used in Cognitive Psychology research and in Cognitive Neuroscience related to long-term memory and spatial processing. We will explore semantic, episodic and spatial memory/processing in humans, networks associated with memory, how it develops, how it is modified as we age, mental health disorders and memory and how it is impaired by focal brain lesions. Questions such as: how episodic memory differ from semantic memory and can we use spatial processing/strategies to test episodic memory? And many other questions will be reviewed and discuss.

This course is a seminar; therefore it will focus on group discussions of scientific articles. The goal of the course is to develop critical thinking, research and presentation skills, enabling students to synthesize, evaluate, and debate current theory and data in the field. This will provide course participants with the ability to evaluate the scientific literature in future, a critical skill for students wishing to pursue graduate studies.
METHODS OF ASSESSMENT

Participation:

- Attend class, read all assigned reading materials and contribute actively to class discussions.

Four (4) critique papers:

- These short papers will take the form of a very brief (1 page) critique of one of the data articles. Describe the main finding(s) of the study and formulate new questions (2 or 3) that are raised by the paper and that future research may address. Do not re-write the abstract of the study.
- The four data articles should be selected from different weeks and the critique paper is due on the day (before 8:00 am) that the reading is assigned for.
- The critique is to be submitted on blackboard, in the assignment folder.

Two (2) in-class presentations:

- Each student will be required to prepare two presentations over the course of the semester summarizing and discussing 1 of the data papers.
- The presentation should be approximately 35-40 minutes, and should summarize the study’s objectives, methods, results, and conclusions. The speaker should also provide some points for further discussion.

By Monday, September 16:

- Participants will have to choose 3 of the data articles from the list on pages 3 and 4 that they are willing to present (2 from the 3 will be selected).

Final Research Proposal:

- The final evaluation for the course will consist of a research proposal outlining a new experiment on any aspect of the cognitive psychology of memory and or spatial processing (see more indications at the end of the syllabus). This research paper is due on December 5.

Components of Final Mark

(Note there will be a 5% per day deduction for late assignments)

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<th>Assignment</th>
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<tr>
<td>Participation</td>
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<td>critiques (4)</td>
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<td>Presentations (2)</td>
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<td>Final research paper</td>
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• Data: Konishi et al. (2013)                                                |
| Mon. Oct 14 | Reading Week                                            |                                                                             |
| Thur. Oct 17 | Reading Week                                            |                                                                             |
• Data: Tulving et al. (1988)                                                  |
| Thu. Oct 24 | Neuropsychology of Spatial memory                       | • Data: Maguire et al. 2006                                                  |
• Data: Craik et al. (2007)  
• Read: Lovden et al. (2012)                                                    |
• Data: Düzel et al. (1997)                                                     |
• Smith & Mizumori, 2006                                                         |
| Thur. Nov  7 | Declarative Memory and Sleep                            | • Review: Diekelmann and Born (2010)  
• Data: Aly and Moscovitch (2010)                                               |
| Mon Nov  11 | Inter-individual differences in Declarative Memory      | • Data: Leport et al. (2012)                                                 |
| Thur Nov 14 | Inter-cultural differences in Declarative Memory        | • Review: Wang (2001)  
• Data: Han et al. (1998)                                                        |
| Mon Nov 18  | Sex differences in Declarative Memory                   | • Review: Cahill (2006)  
• Data: Maitland et al. (2004)                                                  |
| Thur. Nov 21 | Declarative memory and mental health                    | • Review: Boyer et al. (2007)  
• Data: Ledoux et al.(2013)                                                      |
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| 22 Nov    | Stress and declarative memory | • Review: Schwabe and Wolfe 2013  
• Data: Schwabe et al. (2010)                                         |
| 23 Nov    | The constructive nature of declarative memories | • Review: Schacter et al. (2011)  
• Data: Bernstein et al. (2005)  
• Read: Ramirez et al. (2013)                                      |
| 24 Dec    | Open Topic                    |                                                                      |
| 25 Dec    | General Discussion            | Final research project due                                           |

**Final Research Proposal:**

For the research proposals, students will design a study in one area of the cognitive psychology of memory. *The papers are limited to 10 pages (excluding the cover page and appendices)* and should take the following form:

1. **Cover Page** - This should include a title, name and affiliation of author, and running head. (Limit 1 page)

2. **Summary** - For your proposal, the summary should be an informative technical summary of the proposed work about 100-200 words in length.

3. **Introduction** - The introductory section of the proposal should provide the background for the research to be conducted, the theoretical rationale, and the motivation for undertaking the study. Why are you doing this research?

4. **Purpose and Goals** - What is the purpose of this research? What do you expect to learn from the study? State the specific hypotheses to be tested. State the independent and dependent variables, if appropriate.
5. **Experimental Design** - Where appropriate, provide a detailed technical description of the experimental design to be used in the study, including within vs. between subject variables, experimental conditions, etc.

6. **Methods and Procedures** - Briefly describe the experimental procedure to be followed. Describe the subjects, setting, stimulus materials, apparatus, and specific procedural details of the experiment.

7. **Data Analysis** - What kind of data will be collected? How will the data be analyzed?

8. **Expected Results** - Assume that your experiment works out the way you have planned. What are the expected results?

9. **Significance** - Why are your results theoretically important? How are they related to the issues discussed in the introduction? How will these findings contribute to broader/more general issues covered in this section of the course? What are the limitations of your proposed experiment?

10. **References** - Include a list of relevant literature

**REFERENCES**


**Resources for you**

**Mentoring Centre - [http://www.sciencessociales.uottawa.ca/mentor/fra/](http://www.sciencessociales.uottawa.ca/mentor/fra/)**
The goal of the Mentoring Centre is to help students with their academic and social well being during their time at the University of Ottawa. Regardless of where a student stands academically, or how far along they are in completing their degree, the mentoring centre is there to help students continue on their path to success.

A student may choose to visit the mentoring centre for very different reasons. Younger students may wish to talk to their older peers to gain insight into programs and services offered by the University, while older student may simply want to brush up on study and time management skills or learn about programs and services for students nearing the end of their degree.

In all, the Mentoring Centre offers a place for students to talk about concerns and problems that they might have in any facet of their lives. While students are able to voice their concerns and problems without fear of judgment, mentors can garner further insight in issues unique to students and find a more practical solution to better improve the services that the Faculty of Social Sciences offers, as well as the services offered by the University of Ottawa.

**Academic Writing Help Centre - [http://www.sass.uottawa.ca/writing/](http://www.sass.uottawa.ca/writing/)**
At the AWHC you will learn how to identify, correct and ultimately avoid errors in your writing and become an autonomous writer. In working with our Writing Advisors, you will
be able to acquire the abilities, strategies and writing tools that will enable you to:

- Master the written language of your choice
- Expand your critical thinking abilities
- Develop your argumentation skills
- Learn what the expectations are for academic writing

Career Services - http://www.sass.uottawa.ca/careers/
Career Services offers various services and a career development program to enable you to recognize and enhance the employability skills you need in today's world of work.

Counselling Service- http://www.sass.uottawa.ca/personal/
There are many reasons to take advantage of the Counselling Service. We offer:
- Personal counselling
- Career counselling
- Study skills counselling

Access Service - http://www.sass.uottawa.ca/acces/
The Access Service contributes to the creation of an inclusive environment by developing strategies and implementing measures that aim to reduce the barriers to learning for students who have learning disabilities, health, psychiatric or physical conditions.

The Student Resources Centres aim to fulfill all sorts of students needs.

Beware of Academic Fraud!

Academic fraud is an act committed by a student to distort the marking of assignments, tests, examinations, and other forms of academic evaluation. Academic fraud is neither accepted nor tolerated by the University. Anyone found guilty of academic fraud is liable to severe academic sanctions.

Here are a few examples of academic fraud:

- engaging in any form of plagiarism or cheating;
- presenting falsified research data;
- handing in an assignment that was not authored, in whole or in part, by the student;
- submitting the same assignment in more than one course, without the written consent of the professors concerned.
In recent years, the development of the Internet has made it much easier to identify academic plagiarism. The tools available to your professors allow them to trace the exact origin of a text on the Web, using just a few words.

In cases where students are unsure whether they are at fault, it is their responsibility to consult the University’s Web site at the following address: 
http://www.socialsciences.uottawa.ca/eng/writing_tools.asp « Tools for Writing Papers and Assignments ».

Persons who have committed or attempted to commit (or have been accomplices to) academic fraud will be penalized. Here are some examples of the academic sanctions, which can be imposed:

- a grade of « F » for the assignment or course in question;
- an additional program requirement of between 3 and 30 credits;
- suspension or expulsion from the Faculty.

Last session, most of the students found guilty of fraud were given an « F » for the course and had between three and twelve credits added to their program requirement.

For more information, refer to: 
http://www.uottawa.ca/academic/info/newsletter/fraud_e.html