

**DEREE COLLEGE SYLLABUS FOR:  
PS 4539 COGNITION - LEVEL 6  
(Updated Fall 2015)**

**3/0/3  
UK CREDITS: 15**

**PREREQUISITES:** PS 1000 Psychology as a Natural Science  
PS 1001 Psychology as a Social Science  
PS 2147 Analysis of Behavioral Data – Level 4  
PS 3318 Research Methods in Psychology – Level 5  
PS 3434 Experimental Cognitive Psychology – Level 5

**CATALOG**

**DESCRIPTION:** This course provides an in-depth exploration of human cognition, focusing on both classic and current issues. The study of cognition relies heavily on experimental research designed to test models and theories of cognitive processes. Topics to be covered include attention, perception, multiple memory systems, encoding and retrieval processes, the role of knowledge, language, problem-solving and reasoning.

**RATIONALE:** This course deals with the cognitive processes of knowing, learning, remembering, thinking, and reasoning. The major goals of this course are:  
(a) to present and analyze in depth the theories and methods psychologists have developed in their study of human memory, language, and thought, and  
(b) to demonstrate the practical applications of these theories and research findings to such everyday activities.  
It is a highly advanced course for psychology majors and is essential for those students wishing to pursue postgraduate studies in psychology.

**LEARNING  
OUTCOMES:**

As a result of taking this course, the student should be able to:

1. Demonstrate systematic knowledge of the theoretical orientation of cognitive psychology and specify how it differs from other approaches to psychology. Evaluate the Connectionism approach to Cognition.
2. Critically evaluate the in Attention and Concept Formation.
3. Demonstrate critical understanding between different types of memory models and their assumed encoding, storage, and retrieval mechanisms
4. Evaluate and constructively criticize the different models on Semantic Memory.
5. Evaluate the role of Visual Imagery in thinking, the structure and processes of Language.
6. Evaluate the problem-solving programs both in terms of their ability to solve problems and as models of human problem solving.
7. Design, carry out and write up, using the current APA, an experimental project on a topic related to the material of the course.

**METHOD OF  
TEACHING AND  
LEARNING:**

In congruence with teaching and learning strategy of the college, the following tools are used:

- Classes consist of lectures and critical discussions of the assigned supplemental articles.
- Office hours
- Use of Blackboard site

## ASSESSMENT:

Two in class “diagnostic” tests ( <b>formative</b> )	0%	Short answer questions (Choice: 3 out of 5)
One experimental project (3,000 words) ( <b>summative</b> )	40%	Literature review / Design / Analysis of results/Discussion
Portfolio of critical assignments ( <b>summative</b> )	60%	Three critical essay questions assessing knowledge on the material covered. Students must gain an average mark of 40% across the three assignments.

The formative test aims to prepare the students for the exams.

The experimental paper tests Learning Outcome: 7

One final exam testing Learning Outcomes: 1, 2, 3,4,5,6.

## READING

### LIST:

#### 1.Required material:

Cognition: Exploring the Science of the Mind Fifth Edition (with ZAPS & Cognition Workbook)

Daniel Reisberg

W. W. Norton & Company

#### 2. Further reading list:

Solso, MacLin & MacLin (2005). *Cognitive Psychology* (7th Ed.). Allyn & Bacon.

Willingham, D.T. (2007). *Cognition. The Thinking Animal*. (3rd. edition).

Smith,E. & Kosslyn,S. (2007). *Cognitive Psychology. Mind and Brain*. Pearson.

Surprenant, A., Francis, G. & Neath, I. (2005). *CogLab Reader*. Belmont, CA: Wadsworth.

MacKay,DG., Shafto,M., Taylor,J.K., Marian,D.E., Abrams,L., &Dyer,J.R (2004) Relations between emotion, memory and attention: Evidence from taboo Stroop, lexical decision and immediate memory tasks. *Memory & Cognition*, 32, 474-478.

Craik, F.I.M., & Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology: General*, 104,268-294.

Baddeley, A. (2003). Working Memory: Looking back and looking forward. *Nature Reviews Neuroscience*, 4, 829-839.

Kosslyn, S. (2005). Mental Images and the Brain. *Cognitive Neuropsychology* 22, 333-347.

Roediger,H.L. &McDermott, K.B. (1995). Creating false memories: Remembering words not presented in the list. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 21, 803-814.

Supplemental journal articles in current issues of Cognition will be posted on the Blackboard.

## RECOMMENDED

**MATERIAL:** Journal of European Cognitive Applied Psychology  
Journal of Experimental Psychology Human Learning and Memory  
Memory and Cognition  
Journal of Cognitive Neuroscience  
Trends in Cognitive Sciences

**WWW**

**RESOURCES:** APA electronic style guide  
[www.docstyles.com/apauick.htm](http://www.docstyles.com/apauick.htm)  
American Psychological Association  
[www.apa.org](http://www.apa.org)  
British Psychological Society  
[www.bps.org](http://www.bps.org)  
Wadsworth Higher Education Learning  
[www.wadsworth.com](http://www.wadsworth.com)  
The Purdue Online Writing Lab  
[owl.english.purdue.edu](http://owl.english.purdue.edu)

**INDICATIVE  
CONTENT:**

1. Introduction to Basic Approaches in Cognition
2. Research in Cognition
3. Pattern Recognition
4. Theories of Attention
5. Memory: Structures and Processes
6. The Representation of Knowledge: Semantic Theory
7. Models of Encoding and Retrieval
8. Visual Imagery
9. Concept and Concept Formation
10. Problem Solving
11. Language Production and Comprehension