Graduate core course in Cognitive Psychology
Fall 2002

Marlene Behrmann, Ph.D
Room 331H Baker Hall
412-268-2790
behrmann@cnbc.cmu.edu

1.30 – 4.20 Wednesdays
Room 340A

This class will cover the core concepts and ideas in the field of cognitive psychology. Issues relating to the brain and its mediation of cognition will also be covered. The format of the class is discussion-based. Please be sure to complete the assigned reading before class and come prepared to participate in the discussion. For each class, two students will be assigned the responsibility for leading the discussion of the readings. Additionally, all students, including the discussion leaders, will be required to come to the class with a list of 3-4 questions. These should focus on implications or open questions about the readings rather than on facts. This list will be submitted to me at the end of class.

Evaluation: At three times during the semester, you will complete a short-lish writing assignment, which will be an essay-format response to a question I will pose. You will have one week in which to complete this. The final evaluation will consist of a take home exam consisting of 3-4 essay-type questions.

Sept 11: Introduction to cognitive psychology and overview of the brain
Chapter 1 (p1-53) Willingham The approach of cognitive psychology
(including the interlude on the brain)

Sept 18: The science of cognition


Discussants: Evan Smith, Dwight Kravitz
Sept 25: The building blocks of cognitive theories


*Discussants: Norma Chang, Gary Lupyan*

*Writing assignment: question given. Response due next class.*

Oct 2: Perspectives on cognitive modeling
First half of session: Dr David Plaut

Second half of session: Dr John Anderson

*No discussants needed*

Oct 9: Vision and Visual imagery
Chapter 2 Willingham Visual perception p54-99
Chapter 8 Willingham Visual imagery, p333-381

*Discussants: Irina Shklovski,*

Oct 16: Attention and spatial processing
Chapter 3 Willingham Attention p100-144

*Discussants: Tiago Maia,*

Oct 23: Auditory processing; Perception and action
First half of session: Dr Lori Holt

Optional reading:

Second half of session:

*Writing assignment: question given. Responses due next class.*

**Oct 30 Memory**

Chapter 4 Willingham Sensory Memory and Primary memory p145-191  
Chapter 5 Willingham Memory encoding p192-234  

*Discussant: Rachel Diana*

**Nov 6 Memory**

Chapter 6 Willingham Memory retrieval p235-178  
Chapter 7 Willingham Memory storage p279-332  

*Discussants: Baris Demiral, Roxy Gonzales*

**Nov 13 Decision making and problem solving**

Dr Marsha Lovett  
Chapter 10 Willingham Problem solving p436-484  

Optional reading:  

Discussants: Dana Byrne, Kobi Wimisberg

Nov 20 Language and Word reading

Chapter 11 Willingham p485-536

Writing assignment: question given. Responses due next class.

Nov 27: Thanksgiving NO CLASS

Dec 4: Where are the gaps in cognitive psychology?
Reading to be announced
Last day of class.

Take-home exam given. 48 hours to complete.
**Leading the discussion:** Here are some guidelines for the discussion leaders.

1. Assume that the discussion of each reading will last about 45 minutes. There are usually 2 readings per session and each discussant will be responsible for one of the two.

2. Come prepared with 3 or 4 key topics or issues or conclusions raised in the paper, and some comments to be made about each of them. Focus on inferences that we as readers can make, or conclusions that can be drawn, relations to other papers/topics that can be made, etc. Draw on the content of the article to make the point, and then relate to other issues in other papers, topics, courses, etc. The main objective of all this thinking is to better understand how perception and action emerge from brain function, and the characteristics of perception and action, as reflected in the main themes. Feel free to seek out additional material to supplement the discussion, as you see fit.

3. Your job as discussant is to raise the key issues, and help focus the discussion on what you think are the main points to be made about the key issues. However, these main points need not primarily come from you. If things go well, others in the seminar will have generated similar points as well as additional points that you probably didn’t think of. Give others every opportunity to contribute to these discussions. It is better (from an instructional point of view) if an important point emerges from a discussion as opposed to must being stated. Feel free to re-state or summarize important points as they emerge, or to make them yourself if they don’t emerge.

4. If there are technical questions or issues that you want to raise, go ahead. If there are problems or limitation in the paper, you can raise them. Don’t play “find the flaw” with the papers.

5. Keep summarization to a minimum. You have to assume that all members of the seminar have conscientiously done the readings.

6. If you want to make overhead transparencies to make some point, you can use the projector that is in the room. You can also make a small powerpoint display if you like as a projector is available too.

Marlene Behrmann