Catalog Description: Theory and research on attention, learning, memory, thinking, understanding, and language.

Schedule number: 22552  
Schedule: 11:00 – 11:50 MWF in AL 105.


Office Hours: MW: 9:30 - 9:50, 12:00 – 12:30 in LS 24C  
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Course Content:

I. Information Processing Stages
   - Introduction
   - Pattern Recognition
   - Attention
   - Short-term Working Memory
   - Long-term Memory
   ---- EXAM ---- Friday, September 30

II. Representation and Organization of Knowledge
   - Memory Codes
   - Visual Images
   - Categorization
   - Semantic Organization
   ---- EXAM ---- Wednesday, November 2

III. Complex Cognitive Skills
   - Language
   - Comprehension and Memory for Text
   - Problem Solving
   - Expertise and Creativity
   - Decision Making
   ---- EXAM ---- Friday, December 9
Exams:

1. Each exam consists of 30 multiple-choice questions based on the preceding section of the course. The questions are evenly distributed across the chapters, except for Chapter 1, which has fewer questions.

2. You should bring (green) scantron 882-E to the exam. Turn in the scantron and questions before the end of class. You can write on the questions.

3. I will return the scantrons and go over the correct answers during the class period that follows the first two exams.

4. The third exam will be given on the last day of classes rather than during the final exam week. There is no comprehensive final exam.

Grades:

Grades are determined by the sum of the three exam scores. You can also earn 2 extra credit points for each exam by turning in short reports for 2 class experiments (or 1 extra credit point for 1 report) at the exam. There will be 3 class experiments during the lectures preceding each exam. Eligible experiments will be announced in class.

Your final grade will be based on the distribution shown below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total score</th>
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<tbody>
<tr>
<td>A</td>
<td>75-90</td>
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<tr>
<td>A-</td>
<td>70-74</td>
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<td>B</td>
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<td>B-</td>
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<td>C+</td>
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<td>C</td>
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<td>D-</td>
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<td>F</td>
<td>0-29</td>
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Study Guidelines:

1. You should be able to recognize the names of major theorists (such as Gibson, Sperling, Rumelhart, Broadbent, Treisman, Kahneman) because theories are often identified by the name of the person who proposed the theory (as in Question 1 below). You do not need to know the name of experimenters although I occasionally use the experimenter's name, along with additional information, to identify the experiment (as in Question 2 below).

2. You should know the major findings of an experiment, but not the details of the data. For instance, it is not important to know that Master players could correctly reproduce 90% of the pieces from a chessboard and weaker players could reproduce only 40% of the pieces from a chessboard. It is important to know that Master players were better than weaker players at reproducing a chess board when the pieces came from a game situation, but were not better than weaker players when the pieces were randomly placed on the chess board.

3. It will help you understand the material if you link research results with theoretical interpretations. The reason Master players did better than weaker players in reproducing an actual game, but not randomly placed pieces, is that chunking helped them only when the pieces were arranged in meaningful patterns.

4. Although there is considerable overlap between the text and lecture, don't ignore material that is not covered in lecture. Half of the period before each exam will be devoted to class questions.

Sample Questions:

1. Which of the following statements is not true of Treisman's model of attention? (a) the bottleneck occurs after pattern recognition, (b) the unattended message is attenuated, (c) thresholds vary across words, (d) expectations influence thresholds.

2. In an experiment by Biederman, the recognition of objects was more difficult when lines were deleted at (a) midsegments, supporting a template theory, (b) midsegments, supporting a structural theory, (c) vertices, supporting a template theory, (d) vertices, supporting a structural theory.

Sample multiple-choice questions are also available online by making the following selections:

1. www.cengage.com
2. Higher Education
3. Enter ISBN: 0495602302
4. Click on Instructor Companion Site
5. Select a chapter
6. Multiple Choice Quiz

Use these questions to self-evaluate your knowledge after studying the material.