Psychology 516, Advanced Cognition
Course Syllabus, Fall 2014

Meeting Time & Room: TR 11-12:15 in I Ed II Room 224
Instructor: Veronica J. Dark      Email: vjdark@iastate.edu      Phone: 294-1688
Office: Science I Room 374      Office Hours: Mon, Fri 2:10-3:00, Thur 10-10:50
                                 No appointment is needed during office hours. Feel free to drop by at other times. If
                                 I'm busy when you come by, we'll set up an appointment.

Course Description

Course Objectives: My goal as an instructor is to help students to learn the many different ways that
psychologists have conceptualized the topics comprising cognitive psychology. We will consider
some older approaches and some newer approaches. Because there is no one approach (old or new)
that can capture ALL the phenomena that have been identified as “cognition”, it is my belief that
students should be exposed to a variety of different approaches. This gives students the background
needed to think critically in the future about cognition and its relationship to behavior.

Students successfully completing this course will be able:

1. to describe the historical and philosophical background of cognitive psychology
2. to describe more established views about human cognition derived from research findings
   in a variety of domains within cognitive psychology (e.g., attention, consciousness,
   memory, language, thinking, and reasoning)
3. to describe different theoretical approaches to human cognition
4. to describe in both written and oral form how some specific aspect of human cognition is
   directly related to another domain of study (i.e., to their graduate program) or how some
   specific aspect of human cognition can be examined via an experiment.

Course format: This is a "core" survey course designed for graduate students in all areas of
psychology (and related fields). The course will consist of lecture with a good dose of class
discussion. Because you are all graduate students, I assume that you have spent a lot of time thinking.
Thus, you have a lot of experience engaging in cognition. In this course, we will consider theories
of what it is you are doing when you are engaging in cognition (i.e., perceiving, attending,
remembering, reasoning, deciding). Because you are expert practitioners of cognition, I expect you to
be able to understand and critically discuss the ideas that the experts have devised.

Attendance: This is a graduate class and I expect you to participate in the discussion. You can't do
that if you are not there. If you need to miss class, talk to me before hand. Your course grade will be
lowered by one unit for each “unexcused" absence after two such absences.

Blackboard: This is how I communicate with you. Check it regularly.

Text: None. The readings are/will be posted on Blackboard.

Reading assignments: Reading lists are posted on Blackboard. All lists further than two weeks in the
future should be considered somewhat tentative, just as the topics in the calendar are tentative.
Additions to or deletions of material on the tentative lists will be announced in class and on
Blackboard not later than two weeks before the list is assigned. I will provide a “reading guide” for
each of the lists as it is finalized. I will put a copy of the PowerPoint presented in each class up on
Blackboard after each class.
Student Learning Assessment Methods

Quizzes: Unless I announce otherwise, there will be a 1-2 item quiz each week over the reading list. I want you to read the material before the Tuesday class, but the quiz will be given at the end of the Thursday class. This will allow you to ask questions if you don’t understand something. The quiz question(s) will be derived from the reading guide. The quizzes are designed to tap factual knowledge that can be learned simply by reading the material. The quizzes are intended to encourage you to keep up with the readings. Plus, the cognitive research suggests that such tests promote learning!

Quiz performance will comprise 25% of your grade in the course. I will toss the lowest quiz before figuring grades.

Short Papers: One way of assessing your understanding of the facts that you have learned will be via short written assignments. There are two types of short papers.

1. Reading list papers: We are going to cover a lot of diverse material in class, material that is relevant to almost any domain of behavior. The material is divided up into 13 lists. Unless I announce otherwise, you will need to respond to each set of readings and lectures by writing a short paper on some aspect of the material. The reading list paper should be about two pages, double spaced, with a reasonable font. It should describe an aspect of cognition (i.e., a concept or finding or principle) that was presented in the readings (or the lecture/discussion thereof). Unless I assign a specific question for a list, the way in which the information is addressed is up to you: you could describe an example of a concept in your personal life, you could critique the logic of an experiment that is described, or you could relate aspects of a cognitive principle to something from another course. There are many more ways that you could engage with the material covered in a list and accompanying lecture/discussion. The short paper for each list should be emailed to me no later than midnight on the Friday after the list is assigned and discussed. I am making it midnight so that you have the weekend to read the new list. The reading list papers will be evaluated in terms of accuracy of content, relevance to the list material, insight, clarity of critical thinking, and general coherence of the writing. The grading scale will be Outstanding = 10 points, Excellent = 9.7 points, Very good = 9.4 points, good = 9.1, okay = 8.8, fair = 8.5 points, acceptable = 8.0 points, unacceptable = 0 points. Very good is the "grade" that I assign to a paper that meets my expectations for this assignment. Based on past classes, I expect most of the examples to be classified as very good with some excellent and some good.

2. Examples: Cartoons, news articles, movie scenes, song lyrics, even advertisements are often directly related to cognitive psychology and recognizing the cognitive psychology in the example reflects your understanding of the class material. You need to find three such examples. One is due every five weeks. Turn in a copy of the example (or a link to it) along with a description (about one page, double-spaced, with a reasonable font) explaining how the example relates to the material in the class. The example will be evaluated according to how well you map the example to the class (e.g., just saying "This illustrates X" is not enough.), to the creativity/insight displayed, and to the general coherence of the writing. The grading scale will be Outstanding = 10 points, Excellent = 9.7 points, Very good = 9.4 points, good = 9.1, okay = 8.8, fair = 8.5 points, acceptable = 8.0 points, unacceptable = 0 points. Very good is the "grade" that I assign to a paper that meets my expectations for this assignment. Based on past classes, I expect most of the examples to be classified as very good with some excellent and some good.

Performance on the short papers will comprise 25% of your grade in the course. I will toss the lowest short paper score before figuring grades.
Presentation & Longer Paper: In addition to the short papers, which are focused on specific lists, a longer paper will assess your ability to integrate and synthesize what you have learned. This longer paper will be the basis of a presentation to the class. For psychology students, this paper will be a research proposal. Non-psychology students may choose to write and present a topic paper instead of a proposal.

*Research proposal (psychology students):* The proposal should outline an experiment that would address the impact and/or importance of some aspect of cognition applied to your field of graduate study. (An experiment means that there is a true independent variable, something that you manipulate. There may be descriptive or correlational aspects to the experiment, but there must be at least one true independent variable.) Sample topics include the role of attention, context effects, the role of working memory, levels of processing effects, practice effects, storage vs. retrieval of information, testing effects, implicit vs. explicit memory, declarative vs. procedural knowledge, automatic versus controlled processing, and so on. The format of the proposal is described in the *(fake) Call for Proposals* posted on Blackboard. It should be between 10-15 double-spaced pages of text (excluding references) and should be written in APA style. In evaluating the proposal, I will consider the conceptual soundness/relevance of the question, the methodological soundness of the proposed study and proposed analysis, the quality/completeness of the discussion of possible outcomes, the extent to which you have developed concepts from the class within the domain of your area of expertise, and the clarity of writing.

*Topic Paper (option for non-psychology students).* The paper should explain how some aspect of cognition informs/clarifies some concept/problem in your field of graduate study. Sample topics include the role of attention, context effects, the role of working memory, levels of processing effects, practice effects, storage vs. retrieval of information, testing effects, implicit vs. explicit memory, declarative vs. procedural knowledge, automatic versus controlled processing, and so on. The paper should be between 8-10 double-spaced pages of text (excluding references). It should develop aspects of both literatures, and should cite relevant references in both cognitive psychology and your domain of study. It should be written in APA style, although I will consider MLA format if you talk to me about it. In evaluating the paper, I will consider the conceptual soundness of the topic, the extent to which you have developed concepts from the class within the domain of your area of expertise, and the clarity of writing.

The proposal/paper must be turned in to me in paper form (not electronically). It will comprise 25% of your grade in the course.

*Presentation:* Each student will give a 12 minute presentation of his or her paper or proposal. The presentation will be followed by a 3 minute question period. The presentation should be informative to other students in the class, who will rate it on content and style and clarity. The presentations will be during the last two weeks of class and during the final exam period. Presentation performance will comprise 10% of your grade in the course.

Given the importance of this assignment, I must approve your proposal/paper topic. To get approval, you need to *meet with me* so that you can explain your proposal or what you plan to cover. You are strongly encouraged to talk to me early in the semester, but the deadline for meeting with me to get topic approval is *Tuesday, November 4*. The paper is due on *Thursday, December 4*, the day that presentations begin.
**Final exam:** There will be a “comprehensive” take home final exam. The exam will consist of three types of questions. First, there will be short essay questions concerning major points discussed throughout the semester. Second, there will be a set cartoons related to topics in cognition that were covered during the semester—You will be asked to write a paragraph about each cartoon indicating how it relates to the material presented in the class. Third, there will be integrative essay questions.

The final exam will comprise 15% of your grade. It will be available on Tuesday, December 2. A hard copy of the answers is due in my box by **noon on Wednesday, December 17**.

**Course Grades**

As described in the previous section of the syllabus, course grades will be determined based on student performance on quizzes (25%), short papers (25%), a longer paper (25%), a presentation (10%), and a comprehensive final exam (15%). This is a graduate class, so my minimal expectations are relatively high. I "expect" A- performance. That said, based on past years, I have never had a semester in which the modal grade was not an A. Typically there are also some A- grades and there may be some B+ grades. I have only twice in many, many years of teaching graduate level classes had to assign a grade of less than a B and I'd like to keep it that way!

Course letter grades will be assigned according to the scale below.

<table>
<thead>
<tr>
<th>PERCENT</th>
<th>GRADE</th>
<th>PERCENT</th>
<th>Grade</th>
<th>PERCENT</th>
<th>GRADE</th>
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</thead>
<tbody>
<tr>
<td>95.0-100</td>
<td>A</td>
<td>83.0-86.9</td>
<td>B</td>
<td>70.0-76.9</td>
<td>C</td>
</tr>
<tr>
<td>90.0-94.9</td>
<td>A-</td>
<td>80.0-82.9</td>
<td>B-</td>
<td>60.0-69.9</td>
<td>D</td>
</tr>
<tr>
<td>87.0-89.9</td>
<td>B+</td>
<td>77.0-79.9</td>
<td>C+</td>
<td>&lt; 60.0</td>
<td>F</td>
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**Miscellaneous**

**Plagiarism.** All written assignments, including quizzes and exams, are to be composed and written by you. Assignments should be in your own words. Plagiarism is unacceptable and will be reported to the Graduate College.

**Disability Accommodations**

If you have a disability and require accommodations, please contact me early in the semester so that your learning needs may be appropriately met. You will need to contact the Disability Resources (DR) office, located on the main floor of the Student Services Building, Room 1076, 515-294-6624 to obtain a Student Academic Accommodation Request (SAAR) that describes the needed accommodations.

NOTE: The class calendar (on the following page) is tentative. I reserve the right to change things if I decide to spend more time on some topic or to introduce a new topic.
The topic schedule and reading assignments are **tentative** until two weeks beforehand. I'll announce modifications in class and post them on Blackboard.

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th><strong>Tentative Topic and Reading List</strong></th>
<th>Assignments*</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 26,28</td>
<td><strong>List #1</strong>: The Cognitive Revolution &amp; Information Processing</td>
<td>No quiz or paper on list #1</td>
</tr>
<tr>
<td>2</td>
<td>Sept 2, 4</td>
<td><strong>List #2</strong>: The “Modal Model” (an early IP model) &amp; Its Child</td>
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<tr>
<td>3</td>
<td>Sept 9, 11</td>
<td><strong>List #3</strong>: Working Memory &amp; a Brief Mention of Imagery</td>
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<td>4</td>
<td>Sept 16,18</td>
<td><strong>List #4</strong>: Attention (Phenomena &amp; Theories)</td>
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<tr>
<td>5</td>
<td>Sept 23,25</td>
<td><strong>List #5</strong>: Automaticity &amp; Cognitive Control (WM)</td>
<td>1st example due 9/25</td>
</tr>
<tr>
<td>6</td>
<td>Sept 30, Oct 2</td>
<td><strong>List #6</strong>: Explicit/Episodic Memory</td>
<td></td>
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<tr>
<td>7</td>
<td>Oct 7, 9</td>
<td><strong>List #7</strong>: Implicit Memory &amp; Learning</td>
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<tr>
<td>8</td>
<td>Oct 14, 16</td>
<td><strong>List #8</strong>: Memory Accuracy</td>
<td></td>
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<tr>
<td>9</td>
<td>Oct 21, 23</td>
<td><strong>List #9</strong>: Semantic Memory (Knowledge &amp; Concepts) &amp; Connectionism</td>
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<tr>
<td>10</td>
<td>Oct 28, 30</td>
<td><strong>List #10</strong>: Thinking &amp; Reasoning</td>
<td>2nd example due 10/30</td>
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<tr>
<td>11</td>
<td>Nov 4, 6</td>
<td><strong>List #11</strong>: Judgment &amp; Decision Making</td>
<td>Topic approved by 11/4</td>
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<tr>
<td>12</td>
<td>Nov 11, 13</td>
<td><strong>List #12</strong>: Cognition &amp; Emotion</td>
<td></td>
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<tr>
<td>13</td>
<td>Nov 18, 20</td>
<td><em>List #12 continued</em>; quiz on Tuesday 11/18; no class on Thurs 11/20 (I'm at Psychonomics)</td>
<td>quiz on Tues</td>
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<td></td>
<td></td>
<td><strong>Thanksgiving Week Break</strong></td>
<td></td>
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<tr>
<td>14</td>
<td>Dec 2, 4</td>
<td><strong>List #13</strong>: Unconscious Cognition?</td>
<td>Proposal or Paper due in class 12/4</td>
</tr>
<tr>
<td>15</td>
<td>Dec 9,11</td>
<td><em>Presentations begin on Thursday, 12/4</em></td>
<td>3rd example due 12/11</td>
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<tr>
<td>16</td>
<td>Final Exam</td>
<td><em>Presentations completed</em> during final exam period,</td>
<td>Final Exam due noon 12/17</td>
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<tr>
<td>Week</td>
<td></td>
<td><strong>Tuesday, December 16, 9:45-11:45</strong></td>
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*Although not specifically noted in this column, a reading list paper is due by **midnight on the Friday** following the last class day of list discussion.

**The fine print**—I intend to conduct the class as described in the syllabus, but I reserve the right to change the readings, assignments, and their due dates if I determine it is necessary in order to reach my instructional goals.