# SYLLABUS PSYCHOLOGY 701-003: Cognitive Basis of Behavior

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Office Hours: Tuesday 1:30p-2:30p or by appt.

*Course Description*: This course is a deep-dive into the world of cognition, including current concepts and theories. Topics to be covered include, but are not limited to, perception, attention, imagery, memory, language, problem solving and decision-making. For each topic, the evidence will be considered in the context of theory. Although the focus will be primarily on understanding cognition as it relates to behavior, brain mechanisms and computational approaches will be also be considered. The focus of the lectures will primarily be on theories and concepts, and the discussions will mostly be driven by current research.

**Reading Assignments**: E. Bruce Goldstein Cognitive Psychology (3rd edition), Wadsworth/Cengage publishing + reading list

**Attendance Policy** Although I do not grade on or take attendance, this is a graduate level course and I expect to see you in class each week.

## Grading & Evaluation:

Your course grade will be based upon class participation (facilitation of/participation in class discussions, responses to questions, etc.), two exams (midterm and final), and a paper. Each of these will contribute the following percentage toward your final grade:

Discussion: 20% Paper: 30% Midterm: 25% Final: 25%

<u>Grading scale</u>: I use a 10-point grading system (e.g., 90-100 = A, 80-89 = B, etc.) with +/- (e.g., 79.5-82 = B-, 88-89.49 = B+, etc.).

<u>Discussions/Readings</u> (30%): Students will be assigned to lead a class discussion of each of the assigned readings. It may be necessary to prepare a handout or a few PowerPoint slides to help organize the discussion. All students must read the article/chapter ahead of time and be prepared to take involvement in the class discussion. Your contribution to class discussions is part of your grade.

A sign-up sheet for presentations will be circulated during the first class meeting. To facilitate class discussion, each non-presenting student must email in advance a question or comment that

#### PSYC-701-003, Fall 2011, Mon 1:30-4:10p Science and Tech I, Rm 120

could contribute to class discussion. This should be sent to the presenters and the instructor at least 24 hours prior to the date and time of the assigned discussion. It will be up to the presenters whether to use the question or comment.

<u>Paper</u> (30%): The paper, to be due towards the end of the semester, will combine a summary with a critique of a peer-reviewed published article from the recent [i.e. 2002+] cognitive psychology literature. Two recommended sources are *Psychological Science* and *Psychonomic Bulletin and Review*, both of which feature shorter articles written for the broader scientific community. Your critique paper should be at least 8 pages in length (double spaced, and excluding title and references). Recommended structure:

- Identify the research question and the *specific* theory/concept being tested
- Identify the independent and dependent variables
- Summarize the results
- Summarize the researcher(s)' conclusions.
- Your critique of the approach, method, conclusions, etc.
- A paragraph or two on why this study is important in the cognitive psychology literature.

It is not essential that you format your paper according to above, but it must contain all of these elements. You need to obtain approval for the selected article from me before you submit your paper, and you must turn in a copy of the article with your critique (including figures).

**Exams** (40%): There will be 2 tests/Exams. The format of these exams will be a mix between Multiple Choice questions and Short answer questions.

*Make-up exams*: If you miss the midterm or final, a well documented excuse is needed to take a make-up exam. Make-up exams will consist of short answer and essay questions. If you can avoid missing an exam, it will definitely be to your benefit to do so.

## Other Policies:

### Special needs:

Every effort will be made to accommodate students with a disability or special needs. If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through that office.

## University Honor policy:

<u>Academic dishonesty in any form will not be tolerated</u>. I will deal with academic dishonesty in accordance with George Mason University's Student Code of Conduct. I recommend that you familiarize yourself with the policies set forth by GMU. The instructor for this course reserves the right to enter a failing grade to any student found guilty of an honor code violation. *Important Dates*:

## PSYC-701-003, Fall 2011, Mon 1:30-4:10p Science and Tech I, Rm 120

Last day to add course: September 6 Last day to drop: September 30

## **Course Schedule**

|      |                |                               | Goldstein     |
|------|----------------|-------------------------------|---------------|
| Week |                | Topic                         | Chapter       |
| 1    | 29-Aug         | Introduction, neuronal basics | Chapter 1     |
| 2    | 5-Sep          | no class                      |               |
| 3    | 12-Sep         | Cognitive Neuro               | Chapter 2     |
| 4    | 19-Sep         | no class                      |               |
| 5    | 26-Sep         | Perception                    | Chapter 3     |
| 6    | 3-Oct          | Attention                     | Chapter 4     |
| 7    | 11-Oct (Tues*) | STM + WM                      | Chapter 5     |
| 8    | 17-Oct         | LTM                           | Chapter 6 + 7 |
| 9    | 24-Oct         | Midterm Exam                  |               |
| 10   | 31-Oct         | Everyday Memory               | Chapter 8     |
| 11   | 7-Nov          | Knowledge                     | Chapter 9     |
| 12   | 14-Nov         | Imagery                       | Chapter 10    |
| 13   | 21-Nov         | Language (Paper due)          | Chapter 11    |
| 14   | 28-Nov         | Problem Solving               | Chapter 12    |
| 15   | 5-Dec          | Reasoning/Decision Making     | Chapter 13    |

Final Exam: Dec 19, 1:30 - 4:15p

Note: This schedule may be subject to change.

<sup>\*</sup>Due to Columbus day, Monday classes meet on Tuesday; regularly scheduled Tuesday classes do not meet this week.