Psychology 312

Memory and Cognition

Course Syllabus, Spring 2012

Course: PSYCH 312
Call number: 21215 (early afternoon) and 19589 (late afternoon section)
Credits: 4
Dates: March 26 – June 7, 2011
Times: Mondays & Wednesdays 12:30–2:18 p.m. (early pm section, 21215)
Mondays & Wednesdays 4:00–5:48 p.m. (late pm section, 19589)
Room: Postle Hall, Room 1180 (PH1180, early afternoon section, 21215)
Psychology Bldg, Room 014 (PS014, late afternoon section, 19589)
Prerequisites: Introductory Psychology (Psych100) and
Introductory Statistics (Psych 219 or 220 or 320, or Stat 145 or 245)
Websites: https://carmen.osu.edu and http://alexpetrov.com/teach/lmc/
Instructor: Dr. Alexander Petrov
course312@cogmod.osu.edu
200B Lazenby Hall
(614) 247-2734
Office hours: by appointment
Office hours: M, W 2:30–3:50 p.m. and by appointment

Course Overview

This course surveys selected topics in modern cognitive psychology with an emphasis on
learning and memory. It is intended for undergraduate students with basic knowledge of
psychology and statistics (prerequisites Psych 100 and Psych 220 or equivalent). Some
questions we will consider are: What is cognitive psychology? What methods do
scientists use to study memory and cognition? What behavioral regularities characterize
human and animal memory? What kinds of memory are there? Where does memory
reside in the brain? How do neurons learn? What are some important theories and models
of memory? What are their strengths and weaknesses? How does one evaluate a scientific
theory? Can memory research help us study and remember better? Are the testimonies of
honest eyewitnesses always reliable? The objective is that by the end of the course the
students are familiar with a representative sample of empirical and theoretical results in
the study of learning and memory, understand the evidence behind these findings, and are
aware of their educational and legal applications. This course is a core course in the
Cognitive Science minor. Information regarding the minor and its requirements may be
found online at http://artsandsciences.osu.edu/interdisciplinary
Course Materials
The main textbook is *Learning and Memory: From Brain to Behavior* by Mark Gluck, Eduardo Mercado, and Catherine Myers (2008). New York: Worth Publishers. ISBN-10: 0-7167-8654-0. There is a companion web site at [http://www.worthpublishers.com/gluck/](http://www.worthpublishers.com/gluck/). It is available from the university bookstore and many other vendors. We will also use Karl Haberlandt’s (1999) *Human Memory: Exploration and Application*, which was the text for Psych 312 a few years ago, and Jerry Rudy’s (2008) *The Neurobiology of Learning and Memory*. PDFs of the relevant portions of the latter two books will be posted on Carmen. A complete reading list appears at the end of this syllabus. The Carmen website ([http://carmen.osu.edu](http://carmen.osu.edu)) is an indispensable resource. All additional readings are available for download from Carmen in PDF format, together with Lecture slides, videos, and various other materials.

Accommodations for Students with Special Needs
The policy of The Ohio State University is to provide every reasonable, appropriate, and necessary accommodation to qualified disabled students. The University's colleges and academic centers evaluate and judge applications on an individual basis and no categories of disabled individuals are automatically barred from admission. The privacy rights of each disabled person are honored to the fullest extent possible. The University's interest in a students disabilities are only for the purpose of accommodating his/her specific disability, thereby providing an academically qualified disabled student access to programs and activities accorded all other qualified students. Whenever generally accessible facilities do not adequately accommodate a specific disability, the University makes every reasonable accommodation and program or facility adjustment to assure individual access. These policies are fully supported and practiced in this class.

Students with disabilities that have been certified by the Office of Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; [http://www.ods.ohio-state.edu/](http://www.ods.ohio-state.edu/). Contact Dr. Petrov privately: email [petrov.11@osu.edu](mailto:petrov.11@osu.edu), telephone 614-247-2734; office in 200B Lazenby Hall.

Tests and Homework Assignments
As we will learn in the course, people remember much better when they study on a regular basis rather than cramming for a final exam. The organization of this course capitalizes on this important property of memory. There will be five homeworks, a Midterm Exam, and a Final Exam. The homework assignments will be posted throughout the quarter. They typically require you to write a few sentences answering two or three questions about a theoretical construct or empirical study described in the textbook, in an additional reading, and/or discussed in class. The two exams are closed-book multiple-
choice tests. The Final Exam is not cumulative, except in the following sense. Each lecture contains one or more slides with a flashbulb icon. Many (but not all) of these slides are titled “The Least You Need to Know.” They identify concepts, facts, and principles that are particularly important. The Final Exam may contain questions about any such need-to-know topic, including those that were introduced before the Midterm Exam. Also, concepts introduced during the first half of the course will continue to be used during the second half. Your knowledge of such concepts can also be re-tested on the Final. If an empirical study was discussed in class at some level of detail, you need to know about it at that level of detail. If a study was mentioned just to provide a new fact, then remember the fact. If the textbook spends more than a few sentences on a study and it is related to a lecture topic, you should know the method, result, and argument. Knowledge is not just about remembering studies and facts. In any field, understanding the theoretical arguments and the proper methods is just as basic as remembering the facts. That is why you will be tested on all three. The Midterm Exam covers the facts, theories, and methods introduced during Lectures 1-8, inclusive, at the level of detail outlined above. The Final Exam covers Lectures 9-17 (75-80% of the items) and also revisits need-to-know topics from the first half (20-25%). Please bring a photo ID, a #2 pencil, and an eraser to the test room.

Policy on Attendance, Missing Exams and Homework Assignments

Attendance is strongly encouraged but not required, except on test dates. Come to class – it makes a difference. I give out test questions in class. I work through examples that will not be available in the notes. I answer questions. You have paid good money for a seat in this classroom. Do not waste it by skipping lectures and trying to learn it all on your own. On top of that, there is a palpable incentive for attending: you earn points by just being present during a roll call. Ten roll calls will be made during the quarter without advance notice. Each time you are present during a roll call you earn 3 points; if you are not present there is no way to earn this credit or make it up. Absences do not require any excuse unless a test was missed. The grading scheme is designed so that it is possible to get an A without attending a single lecture. All you have to do is write all homeworks and ace both tests.

You must get approval prior to missing an exam except in the case of a true emergency. In the event of a last-minute emergency, you must call Dr. Petrov (247-2734) or the office associate for the cognitive area (Sheena Riepenhoff, 292-1123) on the same day as the exam, preferably before the test begins. Acceptable excuses for missing an exam are a death in your family, personal illness or the illness of your child or spouse, and unforeseen accidents like your car breaking down or getting stuck in an elevator. I will need documented proof of these events should they occur, so get a funeral card, a note from your physician (on letterhead or a form designed for this purpose), and/or an invoice from the towing company with the date on it. Makeup exams will only be given in cases of documented emergency or when prior approval has been given to miss an exam. Note that if you are not sick enough to go to the doctor, you are not sick enough to miss the exam. If you are late for the test, you will be allowed to take it but you must submit your answer sheet by the closing time like everybody else. Once the test begins, no questions
about any test item are allowed. Please do not leave your seat until you are ready to turn your answer sheet in. After you turn it in, leave the test room immediately.

Homework assignments will be posted on the Carmen website with a start time and an end time at least four days later. You are responsible for checking the Carmen website for new assignments, which will appear in the Dropbox section and also on the calendar. Assignments must be uploaded to the assignment drop box in MS Word doc, plain text, PDF, HTML, or RTF format. Assignments in other formats are not acceptable and will not be graded. In particular, .wps, .wpd, and .odt are not supported. **The only way to submit your homework is to drop it in its corresponding Dropbox on Carmen.** Files dropped in a wrong Dropbox, submitted by email, given to the course assistant, slipped under a door, and so on will not be accepted without prior permission. It is your responsibility to make sure your files are uploaded successfully and to resolve any technical problems by calling the Carmen support staff directly. There is a 40-hour grace period after the deadline for each assignment. **There is no way to obtain credit for an assignment after the grace period has passed.** (The corresponding Dropbox on Carmen may list a later deadline in order to accommodate technical delays during the file upload process. The Carmen deadline may change without notice.) **Once again, the real deadline is the one posted in the Course Calendar section below.** Then there is a 40-hour grace period as defined by astronomical time, not by the Carmen clock. There are no exceptions to the rules printed in boldface above.

Occasionally, email announcements are sent to the class list and/or to individual students. All of these messages are addressed to your official OSU account (the one with the “dot number”). This is the only account known to Carmen. Therefore, **please make sure to check your official OSU account regularly.** Failure to check the official email account is not a valid excuse for missing a deadline.

**Grading**

Your grade will be based on points that you earn for homework, tests, and attendance:

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>60 points for 5 assignments of 12 points each</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>90 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>120 points</td>
</tr>
<tr>
<td>Attendance</td>
<td>30 points for 10 roll calls of 3 points each</td>
</tr>
<tr>
<td><strong>Maximum total score</strong></td>
<td><strong>300 points</strong></td>
</tr>
</tbody>
</table>

To get an A, you need to score at least 260 points (86.7% of the maximum). Note that you can reach that without any attendance points if you ace the homeworks and the tests. Your total points earned from any of the four categories above determines your grade according to the following cutoffs:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Cut</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>86.7%</td>
<td>260</td>
</tr>
<tr>
<td>A–</td>
<td>83.3%</td>
<td>250</td>
</tr>
<tr>
<td>B+</td>
<td>80.0%</td>
<td>240</td>
</tr>
<tr>
<td>B</td>
<td>76.7%</td>
<td>230</td>
</tr>
<tr>
<td>B–</td>
<td>73.3%</td>
<td>220</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Cut</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>C+</td>
<td>70.0%</td>
<td>210</td>
</tr>
<tr>
<td>C</td>
<td>66.7%</td>
<td>200</td>
</tr>
<tr>
<td>C–</td>
<td>63.3%</td>
<td>190</td>
</tr>
<tr>
<td>D+</td>
<td>60.0%</td>
<td>180</td>
</tr>
<tr>
<td>D</td>
<td>56.7%</td>
<td>170</td>
</tr>
</tbody>
</table>
The exams have been calibrated in numerous previous installments of this course. There has never been any need for curving.

The instructor and the course assistant make every effort to ensure that the grades are accurate, fair, and consistent. Nobody is immune to mistakes, however. If you believe that your test and/or homework results are in error, please let us know no later than one week after the results are announced. Such notifications must be made in writing and emailed to psych312@cogmod.osu.edu. We will review your complaint carefully and answer by email or invite you to a personal meeting with Dr. Petrov to discuss the issue. **Complaints about test results, homework results, or anything else that affects your grade will not be considered or discussed unless a written statement was emailed to psych312@cogmod.osu.edu in advance. Messages sent to any other email account will be ignored.** There are no exceptions to these rules.

**Course Calendar**

5. M 4/09 – Behaviorism. Classical and instrumental conditioning. **HW#2, due 4/16**.
   (The Midterm Exam covers the above material: Lectures 1 through 8, inclusive.)
   R 5/10 – Greenwald Lecture by Prof. Elizabeth Loftus (4:00 pm)
   **M 5/14 – Midterm Exam.** Same time, same room. Bring a photo ID and a pencil.
   Memory distortions. Assign **HW#5, due 5/30**.
19. **M 6/04 – Final Exam: EARLY PM SECTION (21215), 11:30am–1:18pm**
   (Note unusual hour!), same room (PH1180). Bring a photo ID.
   **R 6/07 – Final Exam: LATE PM SECTION (19589), 3:30–5:18pm**
   (Note unusual day and hour!), same room (PS014). Bring a photo ID.

The course calendar is subject to change at the discretion of the instructor, depending on the rate of progress through the material, student interest in alternative topics, and/or scheduling constraints. The dates for the Midterm and Final Exams are fixed.
Additional Readings (Required)

In addition to the main textbook (Gluck, Mercado, & Myers, 2008), the following additional readings supplement and amplify some topics of particular importance. All additional readings are available on Carmen in PDF format (in the Resources section of the Content area). The list of readings is subject to change at the discretion of the instructor, depending on the rate of progress through the material, student interest in alternative topics, and/or scheduling constraints.


2. Haberlandt, Karl (1999). *Human Memory: Exploration and Application*. Boston, MA: Allyn and Bacon. [Used to supplement the main text in various lectures and homework assignments. Relevant excerpts are available on Carmen in PDF format. Check this file to see which pages are relevant for us.]


5. Rudy, Jerry (2008). *Neurobiology of Learning and Memory*, Sunderland, MA: Sinauer Associates. [Used to supplement the main text in various lectures and homework assignments. Relevant excerpts are available on Carmen in PDF format. Check this file to see which pages are relevant for us.]


Optional Readings (Not Required)

The readings below are not required and will not be distributed in Xerox copy. For those of you who have a special interest in cognitive psychology, PDFs are available on Carmen in PDF format (in the Resources section of the Content area).


**Academic Ethics**

All students enrolled in OSU courses are bound by the *Code of Student Conduct* ([http://studentaffairs.osu.edu/resource_csc.asp](http://studentaffairs.osu.edu/resource_csc.asp)). The instructor and course assistants are committed to maintaining a fair assessment of student performance in this course. Suspected violations of the *Code* will be dealt with according to the procedures detailed in the *Code*. Specifically, any alleged cases of misconduct will be referred to the Committee on Academic Misconduct. It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the *Code of Student Conduct*.

There are two major ethical considerations in this course. First, both exams are closed book. No notes may be used during the examinations and you may not confer with your fellow students or look at other examinations for answers during the exam period. Prior to the examinations, you are encouraged to study in small groups. However, once you enter the examination room, you are expected to work alone. Second, you are expected to work alone on your homework assignments. You may not turn in anything that you did not completely write. Be careful about plagiarism; attribute quotes and ideas that others have previously published where appropriate. A very comprehensive website that describes most aspects of plagiarism has been produced by Northwestern University ([http://www.northwestern.edu/uacc/plagiar.html](http://www.northwestern.edu/uacc/plagiar.html)). We strongly encourage you to visit this site.

Please silence your cell phones during the lectures. Random ringing distracts everybody in the room and show lack of respect to your colleagues and the instructor.

Finally, welcome to the course. I hope that you will enjoy the class and learn valuable information and skills. I look forward to seeing you on March 26.

    Alex Petrov

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