

# San José State University

## Department of Psychology

### PSYC 155-04, Human Learning, Spring 2023

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#### BASIC COURSE INFORMATION

|                             |   |
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| <b>Instructor</b>           | Corey Fernandez, PhD  |
| <b>Office location</b>      | Dudley Moorhead Hall (DMH) 230  |
| <b>Email</b>                | <a href="mailto:corey.fernandez@sjsu.edu">corey.fernandez@sjsu.edu</a>  |
| <b>Office/Drop-In hours</b> | <ul style="list-style-type: none"><li>• Weds 9:00am-11:00am</li><li>• If you can't make my usual drop-in hours, book a virtual appointment <a href="#">here</a></li><li>• Zoom link for virtual meetings <a href="#">here</a></li></ul> |
| <b>Class days/time</b>      | <ul style="list-style-type: none"><li>• Tues/Thurs, 1:30-2:45pm</li><li>• Sweeney 314</li></ul>   |
| <b>Prerequisites</b>        | PSYC 1  |

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#### ACKNOWLEDGING THE PANDEMIC

I would like to start by acknowledging that this pandemic has been and will continue to be challenging this Spring, particularly with uncertainties regarding the new variants and other viruses circulating. I am sympathetic to your situation, and I pledge to work with you to understand the unique challenges you're facing, to connect you to relevant resources, and to find a path forward so that you can successfully engage with this course. I know it can be hard to speak up when you're struggling, but the sooner you reach out and let me know about any obstacles you're facing, the sooner I can help develop flexible solutions.

Additionally, I encourage you to read SJSU's [Health Advisories](#) site to keep up with the latest messages and policies regarding being present on campus. I will be continuing to wear a mask indoors in public spaces, and I strongly encourage you to do the same if you are able. Not just for me, or for you, but for all of those in our community who have compromised immune systems or other vulnerabilities; who have vulnerable family members who may or may not be able to get vaccinated; who come into contact with vulnerable populations and want to avoid transmitting the virus to them; who have been infected with COVID previously and do not want to compound the probability of future long-COVID-related complications; and everyone who wants to avoid infection, whatever their reason. Masks will be especially beneficial in tightly-packed spaces, spaces with poor circulation (i.e., no open windows, older buildings), and spaces where many people are talking or singing at once (like classrooms during discussions).

## **COURSE DESCRIPTION**

The goal of this course is to help you build an appreciation for the central role that learning and memory plays in our lives. None of us could have a conversation, ride a bike, sing lyrics to a song, recognize our family, or even have a sense of our own identity if it were not for the ability to learn and to remember the past. As you'll find, the function of memory is never as obvious and astonishing as when it fails us. In this course, we will survey the most influential theories and findings in this important and extensive area of research. Basic research and theory will be discussed, as well as a variety of fascinating topics including training pets, amnesia, the relationship between sleep and memory, false memories, the accuracy of eye-witness memory, and Alzheimer's disease.

From the course catalog: "Memory, forgetting, concept formation, language learning, reinforcement and related topics. Traditional learning concepts, theories and findings with reference to contemporary classroom management, behavior modification and other applications."

## **COURSE FORMAT**

We will be meeting in-person during our scheduled class days/times.

The material in this course will be presented through a combination of class lectures, in-class demonstrations, partner/group activities, and assigned readings from the textbook and other sources. Lectures will complement the reading material and will include additional information not covered in the readings. As such, attending class is essential for optimal performance in the course. Keeping pace with the reading schedule and being proactive about seeking help are similarly important in achieving a successful outcome. Please ask questions when you don't understand information in lecture or in the readings – asking questions and offering ideas is welcomed and encouraged!

## **Technology requirements**

To use Canvas, you will need access to the internet and either a computer or mobile device. If you do not have access to these resources, please reach out to me and I can point you to university resources. An excellent place to start is the [Technology page](#) on SJSU's Learn Anywhere website at: <https://www.sjsu.edu/learnanywhere/equipment/index.php>. It includes resources relating to low-cost or free Wi-Fi, as well as computer loans from the university.

## **CANVAS**

Course materials such as the syllabus, assignments, announcements, grades, etc. can be found on the [Canvas learning management system](#) course website at <http://sjsu.instructure.com>. You are responsible for regularly checking Canvas to learn of any updates. It is important to ensure that you adjust your Canvas notification settings so that you receive all course announcements as soon as they are posted. For help with using Canvas see [Canvas Student Resources page](#) at: [http://www.sjsu.edu/ecampus/teaching-tools/canvas/student\\_resources](http://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources)

## OFFICE/DROP-IN HOURS

Drop-in hours give students the opportunity to ask in-depth questions and explore points of confusion or interest that can't be fully addressed in class. Drop-in hours are a great opportunity to chat with your instructor about questions you might have that are related to class, study skills, your research or career interests, graduate school, or anything else that I may be able to help with. If you'd like to stop by, please see the relevant information on p1 of this syllabus.

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## COURSE LEARNING OUTCOMES (CLO)

Upon successful completion of this course, students will be able to:

- **Master course content**
  - CLO1: Demonstrate knowledge of major concepts of learning and memory
  - CLO2: Identify processes by which we encode, store, and retrieve information
  - CLO3: Explain research methodologies used in the study of learning and memory, primarily in humans, but also in other animals
- **Demonstrate critical and applied thinking**
  - CLO4: Compare and contrast major theories of learning and memory, and evaluate evidence for and against these theories
  - CLO5: Apply concepts in learning and memory to real-world problems and events
- **Communicate course concepts**
  - CLO6: Communicate how memory failures impact your own life and the factors that contribute to these failures

## PROGRAM LEARNING OUTCOMES (PLO)

Upon successful completion of the psychology major requirements, students will be able to:

- **Knowledge Base of Psychology**
    - PLO1: Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
  - **Research Methods in Psychology**
    - PLO2: Design, implement, and communicate basic research methods in psychology, including research design, data analysis, and interpretations.
  - **Critical Thinking Skills in Psychology**
    - PLO3: Use critical and creative thinking, skeptical inquiry, and a scientific approach to address issues related to behavior and mental processes.
  - **Application of Psychology**
    - PLO4: Apply psychological principles to individual, interpersonal, group, and societal issues.
  - **Values in Psychology**
    - PLO5: Value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.
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## REQUIRED TEXTS / READINGS

### Textbook

Gluck, M. A., Mercado, E., & Myers, C. E. (2020). Learning and Memory: From Brain to Behavior (4th ed). NY: Worth Publishers.

### Other readings

Additional readings will be provided as links or PDFs posted on Canvas.

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## COURSE REQUIREMENTS AND ASSIGNMENTS

Assignments in this class will be grouped into the following categories:

| Category              | Points         |
|-----------------------|----------------|
| Participation         | 22             |
| Midterms              | 40             |
| Forgetting project    | 16             |
| Cumulative final exam | 22             |
| <b>Total points</b>   | <b>100 pts</b> |

### Assignment categories

See the details below regarding each type of assignment, and please also see “Grading Information” and “Schedule.”

#### Participation

Your participation grade will include several low-stakes homework assignments, in-class activities, and quizzes. Please note that late homework assignments and quizzes will not be accepted unless you’ve requested an extension that has been approved by the instructor (see below). These assignments will address CLOs 1-5.

#### Midterms

Each of three midterms will contain multiple-choice and short answer questions that cover the assigned reading material and information presented in lecture. They will be time-limited (1hr 15 min), such that you still need to sufficiently study and prepare. If you have an extended time accommodation through AEC, I will adjust your time accordingly. Please note that no makeup midterms will be given unless you’ve requested an extension that has been approved by the instructor (see below). However, to allow flexibility, the lowest score

of the three midterms will be dropped, such that the remaining two midterms will count 20 points each. Midterms will address CLOs 1-5.

### Final exam

The cumulative final exam is required and cannot be dropped. The first portion of the exam will be similar to a midterm that covers the final unit of the course. The second portion will contain short answer questions that cover cumulative content. It will be time-limited (2hr 15 min), such that you still need to sufficiently study and prepare. If you have an extended time accommodation through AEC, I will adjust your time accordingly. Please note that no makeup exams will be given unless you've requested an extension that has been approved by the instructor (see below). The final exam will address CLOs 1-5.

### Forgetting project

For this project you will record and summarize your own memory failures over a period of several days. In addition to three small assignments in which you report on your forgetting, you will also write a paper describing two examples of your forgetting, their underlying causes, and solutions for each that address the underlying causes. The purposes of this project are to (a) make you aware of how common forgetting is, as well as its consequences; (b) allow you to discover the underlying causes of your forgetting as they relate to course concepts, and (c) encourage you to find solutions to reducing your forgetting and improving your own life. This assignment and a grading rubric will be discussed in greater detail later in the semester. The final project will address CLOs 1, 2, 5, and 6.

### **Submitting assignments**

All homework assignments and quizzes are due by the beginning of lecture on the specified due date unless explicitly mentioned otherwise. All assignments will be submitted via Canvas. It is your responsibility to ensure that submitted files are properly uploaded and complete by the due date. As such, blank/incomplete/corrupt files will not be accepted, similar to how a blank piece of paper would never be accepted in class. I suggest beginning the submission process at least 30 mins in advance of each deadline to ensure sufficient time to correctly upload your files and address any Canvas-related difficulties.

### **Late assignments**

No late homework assignments, quizzes, midterms, etc. will be accepted unless a request for extension has been approved (see below). I will, however, accept late final papers with the following penalty: For each 24-hr period your final paper is late, your score will drop 10%. I.e., if you submit your paper one hour late (within the first 24-hr period), your grade will drop by 10%; if you submit it 25 hours late (within the second 24-hr period), it will drop by 20%, and so on.

### **Requesting extensions**

No late assignments will be accepted unless a request for extension has been approved. If you encounter an unexpected emergency outside of your control (e.g., COVID infection, eviction from your home, daycare closure, etc.) and you would like to request extension on an assignment, please fill out [this Google Form](https://forms.gle/nfpuiaqj1rbBupJD7) at <https://forms.gle/nfpuiaqj1rbBupJD7> **in advance** of the assignment deadline. Although filling out this form is not a guarantee that your request will be approved, I take all requests seriously and will work with you to find appropriate resources and a path forward for completing your coursework.

Please note that my flexibility with respect to deadlines relates to situations beyond your control, and that this flexibility does not apply to vacation travel, conflicts with your work schedule, or other foreseeable

circumstances that are within your control. I expect you to act ethically and honorably, and not to take advantage of this situation.

### **Expected effort**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

Please review the following sources and policies, as well:

- [University Syllabus Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) at <http://www.sjsu.edu/senate/docs/S16-9.pdf>
  - Office of Graduate and Undergraduate Programs' [Syllabus Information web page](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) at <https://www.sjsu.edu/curriculum/courses/syllabus-info.php>
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## **GRADING INFORMATION**

Grades will be based on participation (homework and quizzes; 22 pts), midterms (40 pts), a cumulative final exam (22 pts), and a final project (16 pts). Letter grades will be assigned according to the table below:

|                                |                          |                                |
|--------------------------------|--------------------------|--------------------------------|
| <b>A plus:</b> 97 - 100 points | <b>A:</b> 93 - 96 points | <b>A minus:</b> 90 - 92 points |
| <b>B plus:</b> 87 - 89 points  | <b>B:</b> 83 - 86 points | <b>B minus:</b> 80 - 82 points |
| <b>C plus:</b> 77 - 79 points  | <b>C:</b> 73 - 76 points | <b>C minus:</b> 70 - 72 points |
| <b>D plus:</b> 67 - 69 points  | <b>D:</b> 63 - 66 points | <b>D minus:</b> 60 - 62 points |
| <b>F:</b> < 60 points          |                          |                                |

### **Extra credit**

Several extra credit opportunities will be offered throughout the semester. Students can complete a maximum of two extra credit assignments, such that each assignment adds 1 point to your overall grade at the end of the semester.

### **Attendance and grading**

As per the [University Attendance and Participation Policy F15-12](http://www.sjsu.edu/senate/docs/F15-12.pdf) at <http://www.sjsu.edu/senate/docs/F15-12.pdf>, "Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading." Thus, although attendance will not be used in determining your grade, regularly participating in class activities is essential for success in the course.

## Academic integrity

Cheating, plagiarism, or other forms of academic dishonesty that are intended to gain unfair academic advantage will not be tolerated. This includes obvious forms of academic dishonesty such as copying someone else's homework assignment and cheating on quizzes/midterms/exams. It also applies plagiarizing published works or those of other students.

Additionally, academic dishonesty includes helping other students gain unfair academic advantage, such as posting or distributing quizzes/midterms/exams and answers to homework assignments. Any students who share such materials (e.g., via sites like Course Hero, Uloop, etc.) or who otherwise distribute such materials will be referred to the Student Conduct and Ethical Development office.

If evidence of academic misconduct is found, you will receive a zero on the assignment(s) in question, and I will file a report with the Office of Student Conduct & Ethical Development. See the [office's website](#) for more information at <http://www.sjsu.edu/studentconduct/policies/>.

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## DIVERSITY, EQUITY, AND INCLUSION

I aim to provide an inclusive learning environment in which diverse backgrounds and perspectives are recognized, respected, and seen as a source of strength. It is my intent to present materials and activities that are respectful of diversity with respect to gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions on how I can make this course more equitable and inclusive to all forms of diversity are encouraged and appreciated.

In accordance with SJSU policies, the Student Code of Conduct, and applicable state and federal laws, discrimination based on gender, gender identity, gender expression, race, nationality, ethnicity, religion, sexual orientation, or disability is prohibited in any form. All such policies and regulations apply to the online environment, just as in face-to-face instruction. I encourage students who have a disability or other condition necessitating accommodation to discuss your needs with me as soon as possible.

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## STUDENT RESOURCES

Now more than ever, I encourage you to take advantage of the following resources.

- The [SJSU Learn Anywhere](https://www.sjsu.edu/learnanywhere/) site (<https://www.sjsu.edu/learnanywhere/>) has a number of helpful resources for learning in an online environment, including help with Zoom and Canvas, finding free or affordable internet and computer resources, FAQs, workshops, and more.
- The [Academic Counseling Center for Excellence in Social Sciences \(ACCESS\) Success Center](http://www.sjsu.edu/access/) (<http://www.sjsu.edu/access/>) provides general education advising for undergraduate students majoring or intending to major in any of the departments in The College of Social Sciences, including Psychology.
- [SJSU Peer Connections](https://peerconnections.sjsu.edu/) (<https://peerconnections.sjsu.edu/>) offers free mentoring, tutoring, and supplemental instruction services for students at SJSU. Peer Educators are students just like you; they understand the triumphs and challenges of being a student at SJSU.

- [The SJSU Writing Center](http://www.sjsu.edu/writingcenter/) (<http://www.sjsu.edu/writingcenter/>) offers a variety of resources to help students become better writers. All of their services are free for SJSU students.
  - [SJSU Counseling and Psychological Services](http://www.sjsu.edu/counseling/) (<http://www.sjsu.edu/counseling/>) invites all students to contact them for any support needed. To get connected, call (408) 924-5910 or email [counseling.services@sjsu.edu](mailto:counseling.services@sjsu.edu).
  - [SJSU Cares](https://www.sjsu.edu/sjsucares/) (<https://www.sjsu.edu/sjsucares/>) provides resources and services for students facing a financial crisis, including trouble paying for food or housing, trouble paying bills (including medical), and housing and food insecurity.
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## UNIVERSITY POLICIES

Per [University Policy S16-9](https://www.sjsu.edu/senate/docs/S16-9.pdf) (<https://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g., learning assistance, counseling, and other resources) are listed on the [Syllabus Information web page](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) at: <https://www.sjsu.edu/curriculum/courses/syllabus-info.php>

See next page for **COURSE SCHEDULE**



## PSYC 155-03, Human Learning, Spring 2023

### COURSE SCHEDULE

Note: The schedule is subject to modification (with fair warning) as the instructor deems necessary. Submit all assignments via Canvas.

| Date   | Topic  | Assignments and Due Dates   | Reference Material  |
|--------|--|---|---|
| Jan 26 | Welcome and intro  |   |   |
| Jan 31 | Experimental methods & Non-associative learning          | <ul style="list-style-type: none"> <li>Student Intros HW due Jan 31 at the start of class</li> </ul>        | <ul style="list-style-type: none"> <li>Skim Ch 1 and 2</li> <li>3.1: Recognizing and responding to repetition</li> <li>3.2: An invertebrate model system</li> </ul> |
| Feb 2  | Classical conditioning I                                 |   | <ul style="list-style-type: none"> <li>4.1: Basic concepts of classical conditioning</li> </ul>   |
| Feb 7  | Classical conditioning II                                | <ul style="list-style-type: none"> <li>Classical Conditioning HW due Feb 7 at the start of class</li> </ul> | <ul style="list-style-type: none"> <li>4.1: All remaining sections</li> </ul>   |
| Feb 9  | Operant conditioning I                                   | <ul style="list-style-type: none"> <li>Quiz 1 due Feb 9 at the start of class</li> </ul>                    | <ul style="list-style-type: none"> <li>5.1: All but Reinforcement schedules, Choice Behavior</li> </ul>   |
| Feb 14 | Operant conditioning II                                  |   | <ul style="list-style-type: none"> <li>5.1: Reinforcement schedules, Choice Behaviors</li> </ul>  |
| Feb 16 | Unit 1 review  |   |   |
| Feb 21 | <b>Midterm #1</b>  | <ul style="list-style-type: none"> <li><b>Midterm #1 in class</b></li> </ul>                                |   |
| Feb 23 | Working memory & cognitive control I<br>Midterm 1 review |   | <ul style="list-style-type: none"> <li>9.1: Transient memories</li> </ul>   |
| Feb 28 | Working memory & cognitive control II                    | <ul style="list-style-type: none"> <li>Digit Span HW due Feb 28 at the start of class</li> </ul>            | <ul style="list-style-type: none"> <li>9.1: All remaining sections</li> <li>9.2: Frontal lobes and consequences of damage</li> </ul>                                |
| Mar 2  | Episodic memory I  | <ul style="list-style-type: none"> <li>Cognitive Control HW due Mar 2 at the start of class</li> </ul>      | <ul style="list-style-type: none"> <li>7.1: Features of episodic and semantic memories</li> <li>7.2: The medial temporal lobes and memory storage</li> </ul>        |
| Mar 7  | Episodic memory II                                       |   | <ul style="list-style-type: none"> <li>7.2: Long-term storage and retrieval</li> <li>7.3: All sections</li> </ul>   |
| Mar 9  | Semantic memory  | <ul style="list-style-type: none"> <li>Quiz 2 due Mar 9 at the start of class</li> </ul>                    | <ul style="list-style-type: none"> <li>6.1: Concept formation, category learning, prototypes</li> </ul>   |

|        |  |  |  |
|--------|--|--|--|
| Mar 14 | Skill learning<br>Unit 2 review              |  | <ul style="list-style-type: none"> <li>• 8.1: All sections</li> <li>• 8.2: The basal ganglia and skill learning</li> <li>• 8.3: Parkinson's disease</li> </ul> |
| Mar 16 | <b>Midterm #2</b>                            | <ul style="list-style-type: none"> <li>• <b>Midterm #2 in class</b></li> <li>• Extra credit: Amnesia movie due Mar 16 at start of class (optional)</li> </ul>                      |  |
| Mar 21 | Encoding I<br>Midterm 2 review               |  | <ul style="list-style-type: none"> <li>• 7.1: Encoding new memories</li> </ul>   |
| Mar 23 | Encoding II                                  |  |  |
| Mar 28 | <i>Spring Break, no class</i>                |  |  |
| Mar 30 | <i>Spring Break, no class</i>                |  |  |
| Apr 4  | Memory expertise I                           | <ul style="list-style-type: none"> <li>• Forgetting Diary #1 due Apr 4 at 11:59pm</li> </ul>   | <ul style="list-style-type: none"> <li>• Ericsson PDF</li> </ul>   |
| Apr 6  | Memory expertise II                          | <ul style="list-style-type: none"> <li>• Forgetting Diary #2 due Apr 6 at 11:59pm</li> </ul>   | <ul style="list-style-type: none"> <li>• 7.1: Retrieving existing memories, When memory fails (Forgetting)</li> </ul>  |
| Apr 11 | Retrieval success and failure I              | <ul style="list-style-type: none"> <li>• Forgetting Profile due Apr 11 at 11:59pm</li> <li>• Extra credit: Joshua Foer TED talk due Apr 11 at start of class (optional)</li> </ul> | <ul style="list-style-type: none"> <li>• 7.1: Retrieving existing memories, When memory fails (Forgetting)</li> </ul>  |
| Apr 13 | Retrieval success and failure II             | <ul style="list-style-type: none"> <li>• Names HW due Apr 13 at start of class</li> </ul>  | <ul style="list-style-type: none"> <li>• Anderson PDF (191-205)</li> </ul>   |
| Apr 18 | Discussion: Tech and memory<br>Unit 3 review | <ul style="list-style-type: none"> <li>• Tech and Memory Discussion HW due Apr 18 at start of class</li> </ul>   | <ul style="list-style-type: none"> <li>• Sparrow or Mueller or Tamir PDF</li> </ul>  |
| Apr 20 | <b>Midterm #3</b>                            | <ul style="list-style-type: none"> <li>• <b>Midterm #3 in class</b></li> <li>• Rough draft of Forgetting Paper due Apr 20 at 11:59pm (optional)</li> </ul>                         |  |
| Apr 25 | False memory<br>Midterm 3 review             | <ul style="list-style-type: none"> <li>• False Memory HW due Apr 25 at the start of class</li> </ul>   | <ul style="list-style-type: none"> <li>• Loftus PDF</li> <li>• 7.1: When memory fails, Memory consolidation and reconsolidation</li> </ul>                     |
| Apr 27 | Sleep and memory                             |  | <ul style="list-style-type: none"> <li>• 7.3: The role of sleep, Learning while you sleep</li> </ul>   |

|                      |  |  |  |
|----------------------|--|--|--|
| May 2                | Emotion and memory<br><b>Paper due</b> | <ul style="list-style-type: none"> <li>● <b>Forgetting Paper due May 2 at 11:59pm</b></li> <li>● Survey: Eyewitness testimony due <u>Weds</u> May 3 at 9:00am</li> </ul> | <ul style="list-style-type: none"> <li>● 10.1: All sections</li> <li>● 10.3: Phobias</li> </ul>  |
| May 4                | Memory in the courtroom                | <ul style="list-style-type: none"> <li>● Extra credit: Sleep due May 4 at the start of class (optional)</li> </ul>   | <ul style="list-style-type: none"> <li>● Lacy PDF</li> </ul>   |
| May 9                | Aging and memory I                     |  | <ul style="list-style-type: none"> <li>● 12.1: Aging memory</li> <li>● 12.2: The brain from adulthood to old age</li> <li>● 12.3: Alzheimer's disease</li> </ul> |
| May 11               | Aging and memory II<br>Unit 4 review   | <ul style="list-style-type: none"> <li>● Extra credit: Brains on Trial due May 11 at start of class (optional)</li> </ul>  |  |
| May 16<br>(optional) | Cumulative review session (optional)   |  |  |
| Weds,<br>May 17      | <b>Final exam</b>                      | <b>Section 04: 12:15-2:30pm</b>  |  |