# PSYCOG: MEMORY DYNAMICS LAB

Class Time: W 2:00-4:00pm in Olin 310 | Office Hours: Tu 3:00-4:00pm/W 10:45-11:45am/by appointment

#### Instructor

Dr. Justin Hulbert office: Preston 108 phone: x4390

e-mail: jhulbert@bard.edu (preferred contact)

#### **Course Materials**

Perusall



brightspace

bardcollege.brightspace.com

## **Prerequisites**

This course typically requires a two-semester commitment or instructor permission

#### Assessment

- P/D/F @ midway
- Final grade calculated as:

Perusall: 30%Lab work: 40%Presentation: 20%Final reflection: 10%





## **Course Overview**

In this course, students will gain experience working in a cognitive neuroscience laboratory. Using controlled experiments and electrophysiological recordings, we will investigate the mechanisms that allow for dynamic control over memories. Students will participate in all phases of the research process including experiment design, stimulus development, programming, data collection, analysis, and presentation.

Scientific research is a process, one that requires creativity, attention to detail, a healthy dose of skepticism, and--importantly--perseverance. To get the most out of this experience, the course generally requires a two-semester commitment. This timeline mimics the Senior Project, with the goal of allowing you to contribute to each stage of the research process. The more you contribute along the way, the more you stand to gain. By taking the initiative and putting in extra time/energy, you may see doors open to additional opportunities like authorship on publications, paid research assistantships, graduate programs, and the likes. Gaining



## **Learning Objectives**

Coming out of this twosemester sequence, you should have:

- Developed a more nuanced appreciation for the primary research methods and theories used to investigate memory dynamics.
- An enhanced ability to read, synthesize, and contribute to the relevant psychological literature.
- First-hand experience designing, implementing, and analyzing a research protocol in a cognitive neuroscience laboratory.
- The necessary skills to program a basic experiment and begin to interpret EEG/ EKG data.
- Had opportunities to present your work to the scientific community.
- A better sense of the nuts and bolts of psychological research and how those skills can be applied to the Senior Project and beyond.

expertise with computer programming or particular pieces of equipment/methodologies may mean more possibilities for your Senior Project or independent study. That said, a *minimal* commitment of 3 hours per week is required outside of times devoted to our scheduled meetings and assigned readings. This may come in the form of "homework" (e.g., conducting a literature review online or in the library) or time working independently (or in groups) in the lab (e.g., programming experiments, testing equipment, scheduling participants, running the experiment, analyzing data, etc.).

### Joint Responsibilities

Achieving the broad aims of this course requires commitments from both me and you. Below you will find an outline of some of those responsibilities. Did I leave something out? Let me know-we can discuss additional responsibilities/group norms as a class.

#### • I (Justin) agree to...

- a) Make myself available outside of class via email,
   Brightspace discussion boards, and during office hours to answer questions, provide extra help, and discuss matters related to the course of study.
- b) Respond in a timely fashion (typically by the end of the next school day) to email queries. In the event that more time is required to fully address the student query, I'll acknowledge receipt of the email and provide you with an estimated response time or suggest meeting in person.
- c) Facilitate a thoughtful, considerate, and engaging learning environment.
- d) Make available on Brightspace key materials forming the basis of synchronous activities for the purposes of review or catching up following absences.
- e) Provide adequate time to complete assignments and notify students about any necessary changes to the course schedule/format as promptly as possible.
- f) Provide comprehensive and fair assessments of materials presented or assigned. Assignments, with a level of feedback commensurate with the nature



#### **Best Practices**

To make the most of office hours, it is recommended that you:

- Avoid waiting until the last minute (before a due date) to attend. Seeking extra help or clarification well in advance of deadlines will leave plenty of time to act on advice.
- Email the faculty moderator in advance or bring with you a concise list of topics/questions you wish to discuss, if possible. Itemizing in this way helps ensure all your questions are addressed and saves you time in the long run. That said, dropping by for a spontaneous, broader chat is also most welcome. Tea and/or coffee will be available.

When emailing the faculty moderator, keep in mind that:

 Taking the time to draft a concise message with proper spelling/punctuation is expected and will be met with a similarly considered reply.

Writing/other academic help is available through <u>Bard Learning</u> Commons (Ic@bard.edu).

- and aims of the task, will be returned to students in a timely fashion.
- g) Create and welcome opportunities for students to provide feedback on the course/teaching throughout the semester.

#### • You are responsible for...

- Showing up to class regularly, on time, and prepared while carefully following the relevant health and safety guidelines.
- b) Checking your Bard email and Brightspace regularly for important announcements about the course.

  Adapting to the pandemic has made keeping in regular contact more important than ever. By clicking "Announcements" and then "Notifications" on the Brightspace landing page, you can request text and/or email alerts to be sent to you for a variety of course-related happenings.
- c) Keeping up with the assignments and readings. Keep in mind that there is no substitute for a deep and focused consideration of the material, spaced out over time and viewed interactively through multiple lenses.
- d) Substantively participating in course discussions (in class and/or online). Note that a top-notch level of participation does not necessitate responding to every question raised in class or online; active or passive efforts to welcome contributions from everyone in the class are also looked upon favorably. Though you are welcome to challenge your fellow students' and my thoughts/conclusions, please do so in a fashion that is respectful. Challenge ideas, not the person raising them.
- e) Maintaining connectivity. There are many benefits to taking handwritten notes (Mueller & Oppenheimer, 2014). However, some activities will require access to an internet-connected device during and between class meetings. As such, it is strongly recommended that you bring a fully charged laptop or tablet with



- you to class. Smartphones are another option, though some features may be limited on such a tiny device. You will have to be diligent in avoiding potential distractions that these devices invite (e.g., surfing the web or checking social media) for yourself and those around you. Please only use devices in class for expressly course-related activities.
- f) Submitting assignments and annotations on time, digitally via Brightspace and Perusall. If circumstances (e.g., illness) are likely to prevent you from turning in an assignment on time, please be proactive and inform me privately as soon as possible. Students requiring alternative course accommodations (including extended time/flexibility on assignments due to disability) should contact me privately as early as possible after the first class meeting.
- g) Upholding academic integrity. Plagiarism (e.g., copying other's words or ideas without proper citation) will not be tolerated. You are expected to work independently on each graded assignment, unless explicitly instructed otherwise. When in doubt as to what constitutes plagiarism within the confines of this course, you are encouraged both to consult the student handbook (<a href="http://www.bard.edu/dosa/handbook/index.php?aid=1201&sid=705">http://www.bard.edu/dosa/handbook/index.php?aid=1201&sid=705</a>) and to contact me for further guidance. There is absolutely no penalty for asking for clarification; however, failing to abide by Bard's standards for academic integrity can result in failing the course.

#### Assessment Details

- Perusall Annotations (30% of course grade)
  - I've heard a shocking rumor: Many college students regularly don't read the assigned materials or give them more than a quick skim! The reasons for this are likely manifold. The materials may be too costly, too dry, too plentiful, too heavy to lug around in the form of a physical textbook. As an instructor, I attempt to balance these legitimate

- criticisms with the imperative to expose students to the necessary background material to spark insight and discussion. To this end, I have decided to adopt Perusall.

  Throughout the semester, you will be required to read and annotate certain course materials using this collaborative e-reader with sophisticated data analytics.
- Perusall helps you learn faster by collaboratively annotating the readings and communicating with your classmates. Collaboration gets you help whenever you need it, makes learning more fun, enables you to help others (which research shows is also a great way for you to learn), and helps me make class better by emphasizing information that you need. Perusall also can read the assigned materials aloud and allow you to take notes (just for yourself-though you can easily share them with other students)!
- If you have a question or information to share about a passage in the readings, highlight the text and type in a comment as an annotation. You can also respond to a classmate's annotation in threads in real time or upvote questions you find helpful. Simply click the question mark to indicate "I have the same question" or the green checkmark to indicate "this answer helped my understanding." Good annotations contribute to the class by stimulating discussion, explaining your thought processes, helping others, and drawing attention to good points. If a particular classmate's point is relevant, you can explicitly "mention" them and they will be immediately notified, even if not presently signed on. I'd encourage everyone to check in on the Perusall discussion again after doing a first pass on a reading and respond to comments and questions or possibly add new commentary based on newfound understanding. Remember that annotations will be visible to other students, as well as to me (though I will not annotate directly—it is your space).
- Research shows that the following behaviors on Perusall predict higher end-of-semester grades and long term mastery of the subject. Accordingly, I will consider these factors in calculating your Perusall score:
  - Contributing thoughtful questions and comments to the class discussion, spread throughout the entire reading (some examples: <a href="https://perusall.com/downloads/scoring-examples.pdf">https://perusall.com/downloads/scoring-examples.pdf</a>)
  - Aim to contribute a minimum of 7 questions/comments per Perusall assignment

     but keep in mind that the quality of the annotations is key (e.g., 100
     annotations that do little to add to the conversation would be worth less than 7
     that prompt critical engagement)
  - Starting the reading early
  - Breaking the reading into chunks (instead of trying to do it all at once)
  - Reading all the way to the end of the assigned reading
  - Posing thoughtful questions and comments that elicit responses from classmates
  - Answering questions from others

- Upvoting thoughtful questions and helpful answers
- Based on the overall body of your annotations, you will receive a score for each assignment that generally follows the benchmarks listed in the rubric below.

Score	Characteristics
3	Your contributions demonstrate <i>exceptionally</i> thoughtful and thorough reading of the assignment; you provided exceedingly helpful answers and/or insightful commentary. It is likely that this high score will be rarely given.
2	Your contributions meet expectations by demonstrating thoughtful and thorough reading of the assignment. You asked good questions, provided helpful answers, and/or otherwise interacted with your fellow students in a helpful way. You should aim for at least this score. Learn from your past scores to improve the quality of your future annotations.
1	Your contributions fell below expectations, demonstrating only superficial reading or limited coverage.
0	You did not make the required contributions by the deadline or they demonstrated reading of only part of the assignment that was merely superficial.

- In some cases, we will use Perusall during our class time together. Other annotated reading assignments will be done outside of our synchronous meetings. Students' reactions to the course readings prior to class will be used to guide the use of our synchronous class time. Thus, it is important that you complete these annotated reading assignments by the deadline given. That will give me the necessary time to prepare accordingly in time for our next synchronous class together.
- To get started with Perusall:
  - 1. Log on to <u>Brightspace</u> and navigate to this course.
  - 2. Navigate to the "Course Introduction" module.
  - 3. Click "Perusall, External Learning Tool" at the top of the page to link the accounts.
  - 4. Because the accounts are now linked, use the Perusall link in Brightspace whenever you want to use Perusall for this course (e.g., to complete an assignment) rather than trying to sign in to Perusall's website directly.
- The "Help" feature in Perusall can be quite, well, helpful in answering your questions. You can also find a Perusall FAQ here or submit a support request here: <a href="https://support.perusall.com/hc/en-us/categories/360002173133-Students">https://support.perusall.com/hc/en-us/categories/360002173133-Students</a>.

- Lab work (40% of course grade) will account for a good chunk of your time devoted to the course and, consequently, your grade. The nature of this work will vary from week to week, but it may include activities like conducting literature searches, learning how to use lab equipment/ software/statistical procedures, programming experiments, recruiting/scheduling participants, running experiments, cleaning up after experiments, and analyzing data. As mentioned above, it is fully expected that different people will bring/develop different skill sets to the lab and some division of labor will logically follow. Still, you are encouraged to give everything you attempt your best shot—you may even find you have surprising interests or skills!
  - You are required to keep an accurate record of your time on task with various aspects of lab work. This spreadsheet should be submitted via Brightspace by the start of class each week, starting the second week of class (while we won't be meeting as a class on Advising Day or the week of Thanksgiving, you will still need to turn in your time sheet those weeks-of course, you won't be expected to do lab work over breaks themselves; however, no report are due Completion Week). Regular failure to submit the spreadsheet on time will result in a grade penalty. While this log must, at a minimum, contain dates, duration of work, and brief description of activities performed (e.g., programming experiment, scheduling participants, etc.), you should use additional fields for notes/revelations that came up along the way [e.g., "discovered a bug in the code (line #36-67 of first\_phase.m) due to an unclosed for-loop; fixed bug, but this affected the first 5 participants' data, which should be excluded"]. Ideally, this record should be useful to you, as well as a way for your instructor to check in on your progress. Your log should reflect at least 3 hours per week (on average--some weeks may require more, some less) of productive lab work, NOT including our scheduled meetings and time devoted to reading assigned materials. Again, more you contribute along the way, the more you stand to gain.
- Presenting a research article (20% of course grade) affords you an excellent opportunity to practice effectively summarizing and critiquing published experimental work. To this end, you will first be asked to identify (or otherwise assigned) an article and then prepare a 15-to-20-minute PowerPoint/Keynote/Google Slides presentation for the group. Your presentation should provide a brief overview of the relevant background and aims of the research, a concise description of the methods, the main findings, and the important conclusions. You should plan on explaining the main figure(s) thoroughly. Importantly, you must also provide your own critical evaluation of the research. Note that adequate preparation for your presentation may mean reading additional background materials, so as to ensure that you have the relevant conceptual grounding. During/after your formal presentation, you are expected to take questions from your audience. Audience members could (and should) ask you anything from questions of clarification to deep conceptual ones. To the extent possible, you should first attempt to answer these questions from a position of authority. After that, you are welcome to open up the floor so

- that we can work through some of the thornier issues together. I have collected a bunch of additional "Journal Club Tips" in a folder by that name on Brightspace.
- Final Reflection (10% of course grade) provides a thoughtful reflection of what you learned in this course. Your reflection should be organized, go beyond simply parroting back course material verbatim, and include how some of the big lessons from this course could be applied to your education, personal life, and/or career going forward. While your submission should be a polished product, having been fine-turned through careful editing, you are welcome to adopt a format that reflects your own preferred style. You could, of course, format this as a standard written term paper, but you could instead produce a video, animation, comic book, podcast, website, or interpretive dance... OK, maybe not an interpretive dance. But you do have pretty wide latitude here. If you're unsure as to whether your plan is appropriate, check with me. To give you a general guideline, your submission should be roughly equivalent to a 3-to-4-page (double-spaced, 11-or 12-point font) paper with reasonable margins. This reflection will take the place of a standard final exam (and will be graded as such). So take it seriously and commit the necessary time to producing it. Your reflection is due (via Brightspace) by 12/15 at 11:55pm. It is OK to submit a link to your reflection (if, e.g., you posted a video to Youtube or created a website); however, you should not continue to edit the material after the deadline (at least until I've had a chance to grade it).

#### Additional Resources

There are treasure troves of information about psychology sprinkled around the internet—much of it can be accessed for free. If you find yourself struggling to understand a concept (or are looking for resources to help build your own experiment), I'd encourage you to search around, carefully evaluate the quality of the sources, and share useful finds with the rest of the class (email it or, even better, post it to Brightspace). Below are some resources I have identified:

- Baddeley, Eysenck & Anderson's Memory (3rd Edition)
  - I highly recommend this text as a supplemental reading. Even if you don't get a hold of a copy, the publishers offer some really useful, free online resources. They include:
    - Practice questions, web links/videos, and biographies: <a href="https://routledgetextbooks.com/textbooks/9781138326095/student.php">https://routledgetextbooks.com/textbooks/9781138326095/student.php</a>
    - Simulations of memory experiments: <a href="https://routledgetextbooks.com/">https://routledgetextbooks.com/</a> textbooks/9781138326095/simulation-experiments.php
    - Glossary of memory terms: <a href="https://routledgetextbooks.com/textbooks/">https://routledgetextbooks.com/textbooks/</a>
       9781138326095/glossary.php
- APA formatting and general reference:
  - Purdue Online Writing Lab (OWL): <a href="https://owl.purdue.edu/owl/research\_and\_citation/apa\_style/apa\_formatting\_and\_style\_guide/general\_format.html">https://owl.purdue.edu/owl/research\_and\_citation/apa\_style/apa\_formatting\_and\_style\_guide/general\_format.html</a>

- I posted some additional reference materials inside the "APA Style/Scientific Paper Writing Tips" submodule found under Brightspace's "Course Introduction" module
- Middlebury Library: <a href="https://middlebury.libguides.com/citation/apa7">https://middlebury.libguides.com/citation/apa7</a>
- ECU Library: https://libguides.ecu.edu/c.php?g=982594&p=7463742
- Video tutorials: https://apastyle.apa.org/instructional-aids/tutorials-webinars
- APA Dictionary of Psychology: <a href="https://dictionary.apa.org">https://dictionary.apa.org</a>
- Searchable article databases (and tutorials):
  - Library: <a href="https://www.bard.edu/library/databases.php?searchtype=sub&subject=psyc">https://www.bard.edu/library/databases.php?searchtype=sub&subject=psyc</a>
  - APA Database Tutorials: https://www.apa.org/pubs/databases/training/tutorials
  - Google Scholar: <a href="https://scholar.google.com">https://scholar.google.com</a>
- Free textbooks & related resources:
  - Cognitive Psychology:
    - College of the Canyons (we'll be annotating a version of this text on Perusall):
       https://www.canyons.edu/\_resources/documents/academics/onlineeducation/
       Psych126TextbookFinalV1\_2.pdf
    - Cognitive Foundations (Pilegard): <a href="https://drive.google.com/file/d/16wQz6JBsX8oAMk5r1zc00tguGMl-UqXn/view">https://drive.google.com/file/d/16wQz6JBsX8oAMk5r1zc00tguGMl-UqXn/view</a>
    - Cognition Laboratory Experiments (Krantz): <a href="https://psych.hanover.edu/JavaTest/CLE/Cognition/Cognition.html">https://psych.hanover.edu/JavaTest/CLE/Cognition/Cognition.html</a>
    - WikiBooks: <a href="https://en.wikibooks.org/wiki/">https://en.wikibooks.org/wiki/</a>
       Cognitive Psychology and Cognitive Neuroscience
    - Cognitive Technologies (Crump et al.):
       <a href="https://www.crumplab.com/cognitivetechnologies/book/">https://www.crumplab.com/cognitivetechnologies/book/</a>
  - Research Methods:
    - Crump et al.: https://crumplab.github.io/ResearchMethods/index.html
    - Cuttler et al.: <a href="https://open.umn.edu/opentextbooks/textbooks/75">https://open.umn.edu/opentextbooks/textbooks/75</a>
    - Saylor: https://legacy.saylor.org/psych202a/Intro/
    - University of Minnesota: <a href="https://open.lib.umn.edu/psychologyresearchmethods/">https://open.lib.umn.edu/psychologyresearchmethods/</a>
    - Bhattacherjee: https://scholarcommons.usf.edu/oa\_textbooks/3/
  - Statistics:
    - De Anza: <a href="https://openstax.org/details/introductory-statistics">https://openstax.org/details/introductory-statistics</a>
    - Saylor: <a href="https://open.bccampus.ca/browse-our-collection/find-open-textbooks/?">https://open.bccampus.ca/browse-our-collection/find-open-textbooks/?</a> uuid=929d4a8d-30b2-4ced-8b50-c39447dc0b74
    - Brown University Statistics Visualizations: <a href="https://seeing-theory.brown.edu">https://seeing-theory.brown.edu</a>
    - VassarStats: <a href="http://vassarstats.net">http://vassarstats.net</a>
    - Effect Size Calculator: https://katherinemwood.shinyapps.io/lakens\_effect\_sizes/
    - Jamovi Open Stats: <a href="https://www.jamovi.org">https://www.jamovi.org</a>

- Power analysis guide using G\*Power: <a href="http://www.mormonsandscience.com/gpower-guide.html">http://www.mormonsandscience.com/gpower-guide.html</a>
- Effect size calculator: <a href="https://katherinemwood.shinyapps.io/lakens\_effect\_sizes/">https://katherinemwood.shinyapps.io/lakens\_effect\_sizes/</a>
- Help choosing an appropriate statistical test:
  - http://www.statsflowchart.co.uk
  - https://stats.idre.ucla.edu/other/mult-pkg/whatstat/
  - <a href="https://www.statstutor.ac.uk/resources/uploaded/tutorsquickguidetostatistics.pdf">https://www.statstutor.ac.uk/resources/uploaded/tutorsquickguidetostatistics.pdf</a>
  - http://abacus.bates.edu/~ganderso/biology/resources/ stats\_flow\_chart\_v2014.pdf
- General reference (this could be useful for your other courses, too):
  - Open Textbook Library: <a href="https://libguides.humboldt.edu/openedu/psyc">https://libguides.humboldt.edu/openedu/psyc</a>
  - NOBA Project: <a href="http://noba.to/d95jpvm7">http://noba.to/d95jpvm7</a>
  - Simply Psychology: <a href="https://www.simplypsychology.org">https://www.simplypsychology.org</a>
  - Project Gutenberg: <a href="https://www.gutenberg.org/wiki/Psychology\_(Bookshelf)">https://www.gutenberg.org/wiki/Psychology\_(Bookshelf)</a>
  - MERLOT Project: <a href="https://www.merlot.org/merlot/Psychology.htm">https://www.merlot.org/merlot/Psychology.htm</a> (or to search more widely <a href="https://www.merlot.org/merlot/searchMaterials.htm">https://www.merlot.org/merlot/searchMaterials.htm</a>)
  - DevPsy Directory: <a href="http://www.devpsy.org/links/open\_source\_textbooks">http://www.devpsy.org/links/open\_source\_textbooks</a>
  - Neuroscience Online: <a href="https://nba.uth.tmc.edu/neuroscience/toc.htm">https://nba.uth.tmc.edu/neuroscience/toc.htm</a>
  - Neuroscience Open Text: <a href="http://neuroscience.openetext.utoronto.ca">http://neuroscience.openetext.utoronto.ca</a>
  - Computational Cog Neuro: <a href="https://github.com/CompCogNeuro/ed4">https://github.com/CompCogNeuro/ed4</a>
- Videos:
  - JoVE Peer-Reviewed Scientific Videos: https://www.jove.com
- Stimuli/stimulus selection for experiments:
  - Tarr Lab: https://www.cmu.edu/dietrich/psychology/tarrlab/stimuli/index.html
  - Kahana Lab: <a href="http://memory.psych.upenn.edu/Word\_Pools">http://memory.psych.upenn.edu/Word\_Pools</a>
  - Latent Semantic Analysis (LSA): http://lsa.colorado.edu
  - MRC Psycholinguistic Database: <a href="https://websites.psychology.uwa.edu.au/school/">https://websites.psychology.uwa.edu.au/school/</a>
     mrcdatabase/uwa mrc.htm
  - University of South Florida Free Association Norms: http://w3.usf.edu/FreeAssociation/
- Cognitive neuroscience methods:
  - Functional Neuroimaging: <a href="https://imaging.mrc-cbu.cam.ac.uk/imaging/Cbulmaging">https://imaging.mrc-cbu.cam.ac.uk/imaging/Cbulmaging</a>
  - Event-Related Potentials: https://erpinfo.org
- Experiment software/code:
  - PsychoPy: <a href="https://www.psychopy.org">https://www.psychopy.org</a> (while this is free, in order to run a web-based experiment, you would need to host it somewhere, which does come at a cost)
  - PsyToolkit: <a href="https://www.psytoolkit.org">https://www.psytoolkit.org</a> (this is free, including for online data collection)

- Programming for Psychologists (Crump reference book): <a href="https://www.crumplab.com/">https://www.crumplab.com/</a>
   programmingforpsych/
- Survey platforms:
  - Qualtrics: <a href="https://www.qualtrics.com">https://www.qualtrics.com</a> (the Psychology Program has a license for this, so that you may collect data online at no additional cost to you...ask me about it)
  - Google Forms: <a href="https://forms.google.com">https://forms.google.com</a>
- Experiment design tools:
  - Balanced Latin square generator: https://cs.uwaterloo.ca/~dmasson/tools/latin\_square/
  - Randomizer: https://www.randomizer.org
- Open Science:
  - Center for Open Science: <a href="https://www.cos.io/services/research">https://www.cos.io/services/research</a>
  - Open Science Framework (OSF): <a href="https://osf.io">https://osf.io</a>
- Use as an entry point for further research (with caution):
  - Wikipedia: https://www.wikipedia.org
  - Youtube: <a href="https://www.youtube.com">https://www.youtube.com</a>
- Participate in online experiments (or get ideas for what is possible, with suggested resources):
  - Bard Psychology: <a href="https://bardresearch.sona-systems.com">https://bardresearch.sona-systems.com</a>
  - Social Psychology: <a href="https://www.socialpsychology.org/expts.htm">https://www.socialpsychology.org/expts.htm</a>

## Diversity and Access

Students at Bard come from a variety of backgrounds and viewpoints. It is very exciting to be able to benefit from these differences, and I anticipate a learning environment in which all approaches and backgrounds are respected and challenged in a way that promotes personal growth. To this end, I expect all members of the class to foster a climate of intellectual curiosity and enthusiasm by: (1) actively engaging in our activities and discussions; (2) being prepared to recognize the impact of bias, privilege, and histories of inequity; and (3) voicing opinions in a way that respects others. As a rule of thumb to encourage more voices to be heard, after you've contributed to a conversation in class, wait for three other people to speak before sharing more. You may notice that I pause between asking a question and accepting responses from the class. This is for a similar purpose.

Bard College is committed to providing equal access to all students. If you anticipate issues related to the format or requirements of this course, please schedule a meeting with me, as I would like us to discuss ways to ensure your full participation in the course. Together, we can plan how best to support your learning and coordinate your accommodations. Students who have already been approved to receive academic accommodations through Disability Services should share their accommodation letter and make arrangements to meet as soon as possible (within the first two weeks of the semester, if at all possible).

Have a learning difference or disability–including mental health, medical, or physical impairment–and are not yet registered? Please contact Disability Support Services at <a href="mailto:disabilityservices@bard.edu">disabilityservices@bard.edu</a> or through their website: <a href="mailto:https://www.bard.edu/accessibility/students/">https://www.bard.edu/accessibility/students/</a>. The Director of Disability Resources and Accessibility, Erin Braselmann, will confidentially discuss the process to establish reasonable accommodations. Please note that accommodations are not retroactive and require advance notice to implement.

The Bard College Accessibility Converter (<a href="https://www.sensusaccess.com/web3/bard/">https://www.sensusaccess.com/web3/bard/</a>) can be used to easily convert documents to a more accessible format. While not all assignments will be equally conducive to non-written submission formats, certain accommodations can be made for audio/video submissions as necessary. Simply contact me with a concrete plan for how the novel format still captures the assignment's learning objectives.

Whether course material brings up challenging issues or you are facing another type of challenge, the Bard Counseling Service may be able to help. For more information, see: <a href="https://www.bard.edu/counseling/">https://www.bard.edu/counseling/</a>.

## COVID-19 Adaptations

Community responsibility will continue to be especially critical to our daily lives. We all have a role to play in helping to keep others as safe as possible. Of course, no choices are risk free, but we can make choices that reduce risk for ourselves and others. Please heed federal, state, local, College, and classroom health and safety policies, realizing that they may change during the semester based on new evidence/circumstances.

The pandemic has further exposed and exacerbated existing inequalities. The Scale Project is a student-led organization committed to increasing equity and access for lower-income students at Bard. They have produced a document entitled, <u>"Being Not-Rich at Bard College"</u> that provides additional tips for navigating some of these challenges. The Scale Project and I both welcome additional suggestions and other feedback.

## Land Acknowledgment

In the spirit of truth and equity, it is with gratitude and humility that we acknowledge that we are gathered on the sacred homelands of the Munsee and Muhheaconneok people, who are the original stewards of this land. Today, due to forced removal, the community resides in Northeast Wisconsin and is known as the Stockbridge-Munsee Community. We honor and pay respect to their ancestors past and present, as well as to Future generations and we recognize their continuing presence in their homelands. We understand that our acknowledgement requires those of us who are settlers to recognize our own place in and responsibilities towards addressing inequity, and that this ongoing and challenging work requires that we commit to real engagement with the Munsee and Mohican communities to build an inclusive and equitable space for all.

### Possible Activities

- Workshop grad school application process (from finding programs/labs to interviewing)
- Analyze HeartSpace data [TNT, HRV (BIOPAC + Polar bands), SSRT]-create analysis pipeline
- Analyze Dreem\_RRR data-create analysis pipeline
- Streamline Z3scoring process (see about license extension)
- Validate Dreem headband coding using Z3score
- Draft sections of Dreem write-up
- Revise existing IRB protocols (add newcomers)
- Recruit/screen participants for re-launch of subject running
- Explore grant opportunities
- Learn PsychoPy programming (begin converting existing MATLAB code to Python?)
- Literature review of online cognitive control experiments
- Develop online memory control battery (from concept to programming/implementation)
- Practice peer review
- TDCS follow-up study (e.g., targeting right dLPFC & looking at control in near- and long-terms)
- Build DFcent follow-up experiment? Time estimation study?
- Develop individualized miniature experiments (seeds for Senior Project)?
- Continue developing lab training materials (sleep scoring, TNT, directed forgetting, etc.) and organizing Team Drive

## Tentative Course Schedule

Week	Date (day)	Торіс
1	9/1 (w)	GETTING TO KNOW YOU
2	9/8 (w)	<ul> <li>GETTING SITUATED</li> <li>➡Time sheet from the past week due today (before class) by 2pm (BS)</li> <li>▶ Discuss Mind Science grant and possible future directions</li> <li>▶ Annotate Mind Science 6-month progress report &amp; addendum (PS)</li> <li>▶ Decide on future Perusall readings (grants, papers, lab manuals, training books)</li> <li>▶ Create a running to-do list (Google Doc)</li> </ul>
3	9/15 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
4	9/22 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
5	9/29 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
6	10/6 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
7	10/13 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
8	10/20 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
9	10/27 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
10	11/3 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
11	11/10 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
12	11/17 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
-	11/24 (w)	NO CLASS - HAPPY THANKSGIVING ➡Time sheet from the past week due today by 2pm (BS)
13	12/1 (w)	➡Time sheet from the past week due today (before class) by 2pm (BS)
14	12/8 (w)	NO CLASS - ADVISING DAY ➡Time sheet from the past week due today by 2pm (BS)

١	Week	Date (day)	Торіс
	15	12/15 (w)	NO CLASS - COMPLETION WEEK
			<ul><li>★ Due (by 11:55pm Wednesday):</li><li>- Final Reflection (individual submission via BS)</li></ul>

Schedule is subject to change to improve pacing and/or accommodate unforeseen events (e.g., severe weather, pandemic, alien abduction). Check announcements on Brightspace/over email.