

# SLEEP!

Class Times: T 4:40-7:00pm in RKC 200 | Office Hours: M 1:30-2:30pm/W 9:30-10:30am/by appointment

## Instructor

Dr. Justin Hulbert  
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(preferred contact)

## Course Materials

Materials will be posted on **Moodle** (see footer for URL & access code).

## Prerequisites

This course is open to moderated students who have completed at least one of the following prerequisites: Cognitive Psychology (PSY 234), Learning & Memory (PSY 243), Neuroscience (PSY 231), Introduction to Neurobiology (BIO 162), or have the instructor's permission.

## Assessment

- Participation: **35%**
- Sleep camp report: **5%**
- Sleep scoring eval.: **5%**
- Article presentation: **15%**
- Grant proposal: **40%**
- Extra credit: **up to +2% pts.**



## Course Overview

People spend roughly one-third of their lives asleep. All too many spend the rest of their lives chronically underslept. What are the pressures that drive us to sleep? What are the benefits of sleep and the risks of not sleeping enough? In this upper-level seminar, we will attempt to answer such questions by reviewing the empirical literature and designing studies to better understand how we can get the most out of sleep.

## Joint Responsibilities

Achieving the broad aims of this course requires commitments from instructor and students alike. Below you will find an outline of some of those responsibilities.

- **Your instructor agrees to...**
  - a) Make himself available outside of class during posted office hours (and by appointment, as necessary) 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



## Learning Objectives

Coming out of this course, you should have:

- The ability to talk competently about the pressures leading to sleep, the problems that can disrupt it, as well as the psychological ramifications of sleep/deprivation.
  - Developed an appreciation for the primary research methods and theories used to measure/influence sleep and related constructs, as well as their limitations.
  - Gained experience scoring sleep and assessing inter-rater reliability.
  - The capacity to critically evaluate evidence related to fundament debates regarding sleep & dreams.
  - Tracked your own sleep habits, identifying opportunities to engage in healthier practices.
  - Developed a persuasive proposal to measurably improve sleep-related outcomes on a larger scale.
- c) Facilitate a thoughtful, considerate, and engaging learning environment.
  - d) Provide adequate time to complete assignments, minimize changes to the published schedule/ assignments, and immediately notify students about any such changes.
  - e) Provide comprehensive and fair assessments of materials presented or assigned. Assignments, with a level of feedback commensurate with the nature and aims of the task, will be returned to students in a timely fashion.
  - f) Create and welcome opportunities for students to provide feedback on the course/teaching throughout the semester.
- **You are responsible for...**
    - a) Showing up to class regularly, on time, and prepared. Please bring a printed or digital copy of your annotated readings to class meetings. While there may be selected activities for which your smartphone is appropriate, another device (e.g., tablet or laptop) should be used if you opt not to bring hardcopies of the assigned readings.
    - b) Checking your college email regularly for important messages about the course.
    - c) Keeping up with the assignments and readings. You should aim to complete the readings well in advance of class meetings, allowing yourself adequate time to wrestle with the content, coming at it from different perspectives. The readings vary in length and difficulty. As such, it may take multiple readings (and independent research online or in the library) to get a firm grasp on certain material. Two types of readings have been posted for you: ones



## 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 [Bard Learning Commons](https://moodle.bard.edu/somnusS20) ([lc@bard.edu](mailto:lc@bard.edu)).

intended as background and ones that will be the topic of focused discussion. In contrast to the designated background articles, which are intended to serve as general reference to prepare you for the rest of the readings/discussion, you will be expected to have thoroughly considered the assigned target articles in detail. Nevertheless, the background articles can inspire some rather interesting connections/new ideas for conversation, so please do skim them, at the very least.

- Substantively participating in class discussions and activities. It is important that you speak up if there's anything in the readings you don't understand (chances are, others have the same question). 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.
- Keeping distractions to a minimum in class. Phones should be turned off or set on vibrate (and kept out of sight unless explicitly required for a class activity).
- Submitting assignments on time, digitally via Moodle (unless prior arrangements have been made with the faculty moderator). *A late assignment will immediately be subject to a 10% penalty, with an additional 10% penalty leveled against that assignment's score for every 24 hours it remains late. The only extensions that will be granted involve documented cases of medical or family emergency. Students requiring alternative testing or course accommodations (e.g., due to disability) should contact the faculty moderator privately as early as possible after the first class meeting.*
- 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 (<http://www.bard.edu/dosa/handbook/index.php?aid=1201&sid=705>) and to contact the faculty moderator 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

- **Class participation & preparation** (35% of final course grade) are critical for enabling quality class discussions and learning throughout the semester. What's more, your thoughts, questions, and responses may simultaneously benefit your peers' understanding and the instructor's ability to identify topics that require additional attention. These are just some of the reasons why it is so important that you regularly attend class eager and ready to participate, having done all of the readings and assignments with due care and consideration. To the is end, your participation will be assessed in a number of different domains:
- **Moodle posts:** Each class meeting, beginning on 2/4 and ending on 4/21 (save for Spring Break), you will be required to post a response to the prompt(s) provided in the course schedule below. The response must be posted to Moodle by 10pm the Monday before the reading is to be discussed. These prompts are intended to help you think deeply about the assigned readings, as well as to help organize our in-class discussions. In addition to the specific prompts, you are encouraged to identify connections to other readings/real-world events and/or comment on the logical/methodological soundness presented in the readings, considering better alternatives. Submissions will be graded on a scale from  $\sqrt{-}$  to  $\sqrt{+}$  (the high end of the scale is reserved for truly exceptional submissions that evidence a level of creative insight that go well beyond basic mastery of the assignment). If, however, you fail to submit a post on time (even if it's only a few minutes late according to the timestamp on Moodle), it will receive a 0. You are invited (though not required) to



respond to each others' posts on Moodle before and after class. The more you engage with each other and the material, the more you'll get out of the course. For real.

- In-class participation:** You should aim to thoughtfully engage and contribute each and every class meeting. Your contributions will be evaluated in terms of both quality and quantity (remember: all students should be given both the opportunity to contribute and respectful consideration of their questions/comments). These contributions include, but are not limited to, in-class activities, take-home assignments, and general discussion. Your in-class participation grade will also reflect the written reflections produced following each student presentation (see below for further details).
- Sleep camp report** (5% of final course grade) will summarize your three-week experience tracking your sleep and dreams while following (as best as possible) the "Sleep Camp" protocol outlined in Dement's (1999) book, "The Promise of Sleep." Week 1 affords you the chance to audit your current sleeping habits. Week 2 is designed to help you pay off the bulk of your sleep debt, while Week 3 is an opportunity to see how having prioritized sleep affects your life. During this period of time, you will be asked to log your sleep and dreams. Templates for this purpose have been provided on Moodle, though you are welcome to amend them/create your own. It often makes sense to print these documents out and, especially for the dream journal, have them close to your bed with a writing implement so that you can write down what you remember as soon as you wake up (feel free to omit any sensitive information you do not wish to submit as part of your assignment). The assignment will be introduced in the first week of class and won't be due until the end of the 6th week of class. As such, you will have some flexibility in identifying the three (continuous) weeks designated for Sleep Camp. Just make sure you leave enough time to write up your report. This report should include an analysis of your sleep habits over the three weeks, if/how they changed, and what consequences this experience has had. Your analysis should include both subjective and objective evaluations. For instance, you should indicate whether/why you feel as though Sleep Camp was beneficial to your sleep quality, general wellbeing, and daily cognitive functioning. What worked? What didn't? You should support your subjective impressions with descriptive statistics in written or graphical form (e.g., changes in average sleep duration, average time to sleep, etc. over the weeks). However, no inferential statistics are necessary (i.e., you don't have to run statistical tests that generate p-values). If you deviated from the general protocol suggested by Dement (or decided to add your own elements, perhaps based on the [National Sleep Foundation's tips](#)), be sure to describe those deviations and their associated implications. Finally, your report should include at least one thoughtful suggestion to improve this exercise in the future. Your full report needn't be long (aim for approximately 3-4 double-spaced pages, not counting the title page or your sleep/dream diary entries, which should be included as an appendix—feel free to digitize those entries any way you see

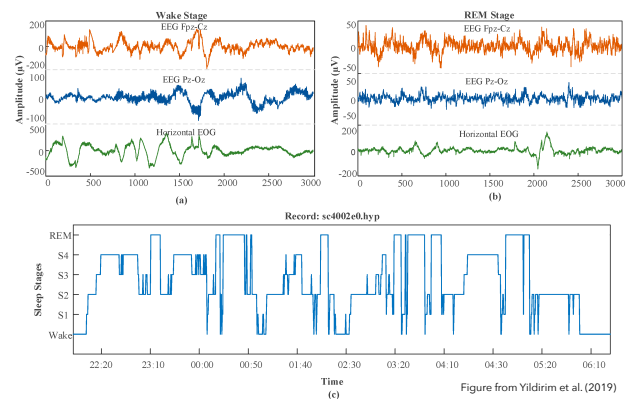




fit, e.g., by taking pictures, scanning them, or typing them up). You are welcome to attempt to analyze your dreams for this report; however, this is *not* necessary. We will consider the interpretation of dreams later in the course, so be sure to retain these logs. If you do not feel comfortable with any element of this assignment, please let your instructor know by the second week of the semester so that an alternate assignment can be arranged.

- **Sleep scoring evaluation** (5% of final course grade) represents the culmination of a semester's worth of practice scoring sleep (i.e., identifying when people are awake/W, in N1, N2, N3/deep/SWS, or REM sleep) based on polysomnographic (PSG) recordings. To this end, your scoring will be compared against that of your fellow students, trained sleep technicians, and automated algorithms. Practice/test data will be provided to you from various sources. Should you be interested in additional data, scoring tools, or reference materials, please ask your instructor and/or visit the National Sleep Research Resource's website ([sleepdata.org](http://sleepdata.org)). Eligible students will also have an opportunity to participate in on-campus nap experiments. Participants may elect to obtain their own raw polysomnographic data to them they can score their own sleep. In general, the short (roughly 1-2 double-spaced pages, including figures) report resulting from this practice should:

- Describe the results of an inter-rater reliability analysis (a technique that will be reviewed in an in-class workshop)
- Present one or more epochs of sleep data that highlights an area of disagreement between the raters, along with the feature(s) that led to/help resolve the disagreement



- **Presenting an empirical article** (15% of final course grade) affords you an excellent opportunity to practice effectively summarizing and critiquing published experimental work. To this end, you will first be assigned one of the designated assigned articles and then prepare a ~15-minute PowerPoint/Keynote/Google Slides presentation with a handout. Together, your presentation/materials 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. Some useful background material has been posted to Moodle; however, you may have to supplement this with your own literature search. Additionally, there is a folder on the Moodle page containing tips for giving short presentations; I would recommend checking them out. 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.

- Presenters should upload their **slides** to Moodle (in PowerPoint, Keynote, or .pdf form—convert to one of these formats if you created your presentation using GoogleSlides) by the beginning of the relevant class meeting.
- Presenters should be sure to bring enough (13x) printed copies of your **handout** for the entire class. The handout should not simply reproduce your slides. Instead, design it with the intention of it becoming a helpful supplementary resource. For example, it could include foundational definitions, an overview of the study design, an outline of the talk, data tables, and/or activities/examples to illustrate the material you will be presenting.
- All non-presenting students will be asked to spend 5 minutes dedicated to **written reflection**, during which they summarize the presenter's main points, make connections to topics of interest, consider how compelling the findings/arguments are, and offer constructive criticism of the presentation. These reflections will be turned in and count towards participation, using a scale from  $\sqrt{-}$  to  $\sqrt{+}$  (the high end of the scale is reserved for truly exceptional submissions). Missing free writes will receive a 0.
- **Grant proposal** (40% of final course grade) will offer a chance for you and your fellow students to consider how you might apply your growing appreciation of sleep outside of the classroom. In the early part of the semester, we'll consider some existing products (e.g., sleep wearables, dietary supplements, beds, brain-cooling devices) and interventions (e.g., Sleep 101 for college students and others reviewed by Murawski et al., 2018) that flood the airwaves and fill the bookshelves of academics. Each of the below components will contribute to your overall grade.



- Based on existing empirical evidence that you will review, you are to refine, reformulate, or otherwise create from whole cloth a product/intervention that you have reason to believe will enhance sleep (and one or more of its psychological consequences) for a specific population (e.g., high school students, college students, the elderly, or those with insomnia, sleep apnea, or REM behavior disorder). You are welcome to base your design on one of those you've come across in your readings; however, direct/exact replications are not

appropriate for this assignment. At a minimum you would have to propose a reasonable extension and justify its theoretical value based on the full body of existing literature.

- In addition to the required **abstract** and **introduction** that describes the problem and previous attempts to address it by reviewing the existing literature, you will need to describe why you think the product/intervention will have the intended effects. In so doing, you will need to describe the materials, along with other important details relating to the **method** of its implementation. It may, for example, be useful to include in an appendix screenshots of what an app might look like, a blueprint of the product, worksheets to be completed by participants, or the instructional script that is to be read to them. As you will also be required to propose a method for empirically evaluating the product/intervention, this section should also include a description of your intended sample, how you plan to recruit and assign **participants** (which may be human or non-human), and your **procedure** for measuring your dependent variable(s). Be sure to clearly describe your comparison group(s)/condition(s), against which you will measure the benefits of your proposed product/intervention. The methodology should be fully developed, logical, and free of major confounds. Limitations should be made explicit and their implications considered in the **discussion** section. Before discussing them, the expected value of the present work as it relates to the larger literature/world, and future directions, though, you should lay out the **predicted results**, both graphically and in words. Your write-up should be accompanied by a **reference** section, which, like the rest of the paper, should follow APA style. Only cite articles you've read in their entirety. Otherwise, use a construction like: "Newton tried comparing apples to oranges (as cited in Hulbert, 2018)."
- As with the final **presentation** in which you attempt to persuade the rest of the class of your proposal, its development will be conducted in groups of 3-4 students. However, your written report (both the **rough draft** and **final version**) will be composed and submitted independently. That said, you are encouraged to engage in peer review. At the end of the semester, you will be asked to complete a **confidential evaluation** of your group members' (and your own) work on the project. These evaluations will be considered together with your work product in arriving at your project grade. I take these evaluations seriously; you should, as well. They should reflect honest, impartial assessments of effort and contributions (written, of course, with the respect you and your classmates deserve).
- While it is not expected that your rough draft be a finished, polished entity, in order to make the exercise productive, your draft should contain at least *6 continuous pages* of writing. The remaining information may be presented in sketch/outline form, if you would prefer. The rough draft represents your opportunity to get feedback that is likely to improve your final grade.
- The final paper is expected to be around *10 double-spaced pages (excluding your title page, references, and appendices)*. In addition to this, you are expected to include a short



cover letter (approximately *1 double-spaced page*) that summarizes how you addressed feedback stemming from your rough draft. If you have come to a conclusion that a suggestion is not pertinent, explain why.

- Tips for scientific writing and APA style have been made available on Moodle. Please use a legible 10- or 12-point font with reasonable margins.
- **Optional video screening** of Mike Birbiglia's "Sleepwalk with Me" will take place on **Monday, March 2** from 7-9pm in **Preston Theater** (snacks provided). Following the movie, you are invited to write a short review of the film, including a thoughtful critique of the representational accuracy of the titular sleep disorder and its impact on the main character. This **2-3 page (double-spaced) movie review** can be submitted for up to **2 percentage points of extra credit** toward the final course grade. See schedule below for the deadline to upload it to Moodle. If you are unable to attend the screening, you are welcome to independently find a way to stream the film, so that you are still able to take advantage of the extra credit opportunity. Even if you don't plan on submitting the paper, we'd love to have you join us for the screening!



## Accessibility

Bard College is committed to providing equal access to all students. If you anticipate issues related to the format or requirements of this course, I invite you to meet with me 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 as soon as 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 [disabilityservices@bard.edu](mailto:disabilityservices@bard.edu). The coordinator will confidentially discuss the process to establish reasonable accommodations. Please note that accommodations are not retroactive and require advance notice to implement.

## Course Planning

Please, please, please take the time to review all the deadlines below. Transfer them to your personal calendar immediately. Doing so will help you avoid scheduling conflicts (e.g., around Spring Break and end-of-semester travel) and allow you to carve out the necessary time to perform your best. Remember, outside

of accommodations facilitated by Bard's Disability Support Services, the only extensions/make-ups that will be granted involve documented cases of medical or family emergency.

## Tentative Course Schedule

Date (day)	#	Topics for Class   Assignments
1/28 (t)	1	<b>COURSE OVERVIEW: WHY DO WE SLEEP? WHY DON'T WE GET ENOUGH?</b> <ul style="list-style-type: none"> <li>▶ Sleepiness assessed (Moorcroft, 2013, pp. 39-44)</li> <li>▶ Defining sleep</li> <li>▶ <a href="#">Video</a> – “Russell Foster: Why Do We Sleep?” (first 8m35s)</li> <li>▶ Getting-to-Know-You Survey: <a href="https://forms.gle/p3vpAhX21PGqCypf6">https://forms.gle/p3vpAhX21PGqCypf6</a></li> <li>• In-class readings: <ul style="list-style-type: none"> <li>- Hobson (2005, Nature)</li> <li>- Gross (2019, Current Biology)</li> </ul> </li> <li>▶ <a href="#">Video</a> – “Matthew Walker: Sleep Is Your Superpower” (19m19s)</li> <li>▶ Assignment explained: Sleep Camp</li> <li>▶ Examine the risks/benefits of biohacking sleep using products on the market</li> <li>▶ Another opportunity to get involved: <a href="#">Participate in a nap study (if eligible)</a></li> </ul>
2/4 (t)	2	<b>SLEEP: BASIC DEFINITIONS, METHODS, &amp; ARCHITECTURE</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- One thing you learned from the assigned background material, why you found it interesting, and ≥1 unanswered question it inspired you to ask</li> </ul> </li> <li>• Background readings/be prepared to discuss: <ul style="list-style-type: none"> <li>- Moorcroft (2013, pp. 1-26)</li> <li>- McNamara (2019, pp. 3-39; 208-227)</li> <li>- Hobson &amp; Pace-Schott (2002)</li> <li>- <a href="#">Radiolab: Sleep podcast</a> (2007)</li> </ul> </li> <li>▶ Assign discussion leaders for future classes (What makes a good presentation?)</li> <li>▶ Assignment explained: Sleep scoring tutorial (practice data: <a href="https://sleepdata.org">sleepdata.org</a>)</li> <li>▶ Visit to nap lab (schedule permitting)</li> </ul>
2/11 (t)	3	<b>OUR EVOLVING THINKING ABOUT SLEEP'S DEVELOPMENT</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- Your own abstract for the Aserinsky &amp; Kleitman (1953) article</li> <li>- A description of a non-human animal with an unusual sleep characteristic, including ≥1 relevant citation</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Joiner (2016)</li> <li>- <a href="#">Nobel Prize press release</a> (2017)</li> <li>- Anafi, Kayser, &amp; Raizen (2019)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Aserinsky &amp; Kleitman (1953)</li> <li>- Friedrich, Wilhelm, Mölle, Born, &amp; Friederici (2017)</li> <li>★Presenter: <u>    Liam Bach    </u></li> <li>- Lyamin, Pryaslova, Lance, &amp; Siegel (2005) plus comments &amp; reply (2006)</li> </ul> </li> <li>▶ Sleep scoring practice</li> </ul>

Date (day)	#	Topics for Class   Assignments
2/18 (t)	4	<b>SLEEP DEPRIVATION</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- A description of a famous disaster that can be linked to sleep deprivation, including an explanation as to how it's linked</li> <li>- Feel free to share how sleep deprivation has affected your life, personally</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Moorcroft (2013, pp. 43-57)</li> <li>- Krause et al. (2017)</li> <li>- Joiner (2019)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Goldstein-Piekarski, Greer, Saletin, &amp; Walker (2015) ★Presenter: __Sally Bass_____</li> <li>- Porcheret, Holmes, Goodwin, Foster, &amp; Wulff (2015) ★Presenter: __Photini Kamvisseli Suarez_____</li> <li>- Nir et al. (2017)</li> </ul> </li> </ul>
2/25 (t)	5	<b>SLEEP &amp; HEALTH</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- The APA-formatted citation and summary (in your own words) of an article you find that is linked to a topic introduced in this week's background materials that isn't directly addressed in the readings for discussion</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Harvey (2011)</li> <li>- Murawski, Wade, Plotnikoff, Lubans, &amp; Duncan (2018)</li> <li>- Hale, Troxel, &amp; Buysse (2020)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Freeman et al. (2017)</li> <li>- Ben Simon &amp; Walker (2018) ★Presenter: __Ana Guaba_____</li> </ul> </li> <li>▶ Assignment explained: Promoting sleep grant proposal (e.g., Harvard's "Sleep 101")</li> <li>▶ Select groups &amp; target disorder for next week's presentation, begin literature search</li> <li>▶ <b>Next Monday (3/2): Screening of "Sleepwalk with Me" (7pm, Preston Theater)</b></li> </ul>
3/3 (t)	6	<b>SLEEP DISORDERS</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- An example of how a sleep disorder was portrayed in popular culture (e.g., film or TV) and how that does/does not align with scientific evidence</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Moorcroft (2013, pp. 323-351)</li> <li>- McNamara (2019, pp. 78-98)</li> </ul> </li> <li>• Be prepared to present your group's target disorder + relevant empirical study</li> <li>▶ <b>Course feedback survey</b> (online, anonymous)</li> <li>▶ <b>Sleep camp report is due Friday 3/6 (by 10pm via Moodle)</b></li> </ul>

Date (day)	#	Topics for Class   Assignments
3/10 (t)	7	<b>SLEEP &amp; MEMORY: THEN &amp; NOW</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- The APA citation of a publication (from the past decade) that cites one of the assigned discussion articles for the week, along with a brief summary of the publication you found and how it meaningfully relates to the assigned reading</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Antony &amp; Paller (2017)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Jenkins &amp; Dallenbach (1924)</li> <li>- Ekstrand (1967)</li> <li>★Presenter: ___Esmee Greenfeld_____</li> <li>- Wilson &amp; McNaughton (1994)</li> </ul> </li> <li>► Course feedback survey results discussed</li> </ul>
3/17 (t)	8	<b>MOVING SLEEP &amp; MEMORY RESEARCH FORWARD</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- The APA citation of a published failure to replicate a sleep-related finding, along with a “reply” you think the authors of the original finding might offer to explain the failed replication</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Borges Silva &amp; Barbosa Soares (2018)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Walker, Brakefield, Hobson, &amp; Stickgold (2003)</li> <li>- Hardwicke, Taqi, &amp; Shanks (2016)</li> <li>★Presenter: ___Alex Luscher_____</li> <li>- More back-and-forth: Walker &amp; Stickgold (2016); Hardwicke &amp; Shanks (2016)</li> <li>- Perrault et al. (2019)</li> </ul> </li> <li>► Rough draft of grant proposal is due Friday 3/20 (by 10pm via Moodle)</li> </ul>
3/24 (t)	--	NO CLASS - SPRING BREAK
3/31 (t)	9	<b>TARGETED MEMORY REACTIVATION</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- An outline of a TMR study of your own design, including predictions</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Schouten, Pereira, Tops, &amp; Louzada (2017)</li> <li>- Antony, Schönauer, Staresina &amp; Cairney (2019)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Rasch, Büchel, Gais, &amp; Born (2007)</li> <li>★Presenter: ___Jewel Smith_____</li> <li>- Diekelmann, Büchel, Born, &amp; Rasch (2011)</li> <li>★Presenter: _____</li> <li>- Cairney, Guttesen, El Marj, &amp; Staresina (2018)</li> </ul> </li> </ul>



Date (day)	#	Topics for Class   Assignments
4/7 (t)	<b>10</b>	<b>A DELICATE BALANCE</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- A thoughtful critique of the synaptic homeostasis hypothesis (feel free to read published critiques to inform yours, but be sure to properly cite them)</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Lewis &amp; Durrant (2011)</li> <li>- Tononi &amp; Cirelli (2014) and <a href="#">optional video</a></li> <li>- Poe (2017)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Dehnavi, Moghimi, Sadrabadi Haghighi, Safaie, &amp; Ghorbani (2019) ★Presenter: ___Parker Smith_____</li> <li>- Hu, Antony, Creery, Vargas, Bondenhausen, &amp; Paller (2015) ★Presenter: ___Lea Rodriguez_____</li> </ul> </li> <li>▶ Inter-rater reliability analysis workshop</li> </ul>
4/14 (t)	<b>11</b>	<b>DREAMS</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- An interpretation of a dream report sourced from <a href="#">dreambank.net</a>, <a href="#">sleepanddreamdatabase.org</a>, or your own dream (if you'd like), clearly identifying the approach to dream interpretation you're taking</li> </ul> </li> <li>• Background readings: <ul style="list-style-type: none"> <li>- Moorcroft (2013, pp. 199-225; 272-287)</li> <li>- McNamara (2019, pp. 194-207)</li> <li>- Lopes da Silva (2003)</li> <li>- Chen &amp; Wilson (2017)</li> </ul> </li> <li>• Be prepared to discuss: <ul style="list-style-type: none"> <li>- Wamsley, Tucker, Payne, Benavides, &amp; Stickgold (2010) ★Presenter: ___Poppy Sheehan_____</li> <li>- Horikawa, Tamaki, Miyawaki, &amp; Kamitani (2013)</li> <li>- Dresler et al. (2012) ★Presenter: ___Cillian Ahearn_____</li> </ul> </li> <li>▶ Select teams/perspectives for next week's dream debate, organize group work</li> </ul>
4/21 (t)	<b>12</b>	<b>YOUR DREAM MATCHUP</b> <ul style="list-style-type: none"> <li>• Have posted to Moodle: <ul style="list-style-type: none"> <li>- A proposed method to test a specific theory of dreaming (with predictions)</li> </ul> </li> <li>• Be prepared to debate your team's perspective (with examples/evidence) <ul style="list-style-type: none"> <li>- Various (optional) background articles/books have been posted on Moodle to support your debate preparations</li> </ul> </li> <li>▶ Final sleep scoring assessment</li> <li>▶ Post-debate activity: Work on your grant proposal/presentation</li> <li>▶ <b>Sleep scoring evaluation is due Friday 4/24 (by 10pm via Moodle)</b></li> </ul>
4/28 (t)	--	NO CLASS - ADVISING DAYS

Date (day)	#	Topics for Class   Assignments
5/5 (t)	--	NO CLASS - PSYCHOLOGY BOARD DAYS <ul style="list-style-type: none"> <li>► Use this time to finalize your grant proposal presentation</li> </ul>
5/12 (t)	<b>13</b>	<b>GRANT PROPOSAL PRESENTATIONS</b> <ul style="list-style-type: none"> <li>► A <b>confidential evaluation</b> of your group members' (and your own) work on the project will be conducted at the end of class</li> <li>► Note that extra credit <b>movie review</b> is due <b>Friday 5/15</b> (by 10pm via Moodle)</li> <li>► Note that final <b>grant proposal</b> is due <b>Friday 5/15</b> (by 10pm via Moodle)</li> </ul>
5/19 (t)	--	NO CLASS - COMPLETION WEEK

*Schedule is subject to change to improve pacing and/or accommodate unforeseen events (e.g., severe weather). However, for planning purposes, every effort will be made to maintain scheduled due dates.*