

Neuroscience, Society and the Media

Department of Psychology & Neuroscience
9:05-9:55, MWF
Spring 2019
PSYC 428 Course Syllabus

Instructor
Dr. Marsha Penner
mpenner@email.unc.edu

Office Hours: By appointment
Office location: Davie Hall 237

Contacting me: My inbox gets very full – to ensure a quick response, *please use the message tool on our course Sakai site to contact me!*

COURSE DESCRIPTION & OBJECTIVES

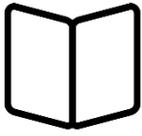
Neuroscience has been and continues to be a ‘hot’ topic in the media. Media coverage of neuroscience research attempt to ‘sum up’ the latest findings, addressing issues such as how the brain contributes to complex human behaviors (e.g., memory, decision making, social and consumer behavior, etc). These reports can have a significant impact on public opinion, research funding, and ultimately this reporting helps to shape the field itself. Through an examination of popular media (e.g., newspapers, movies, podcasts) and primary research articles, we will consider how accurately neuroscience research is covered in the media. We will ask: Are there discrepancies? Is the science represented accurately? Is the interpretation of the research reasonable and backed up by the evidence? Through this process we will: 1) cultivate a deeper understanding of the scientific process, including its strengths and weakness, 2) examine how the general public (i.e., non-scientist) is exposed to neuroscience research, and 3) discuss what kind of brain research is covered by the media, and why.

TARGET AUDIENCE

This course is intended for students interested in neuroscience and how the media covers neuroscience research and related topics.

Prerequisite: PSYC 220, or PSYC 315/175

COURSE RESOURCES



Required Textbook: *Brainwashed: The Seductive Appeal of Mindless Neuroscience* by Sally Satel, Scott O. Lilienfeld.



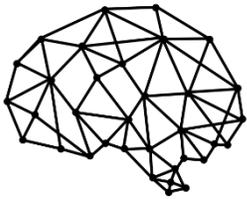
Assignments, additional readings, etc can be found on the course Sakai site: <https://sakai.unc.edu/>

WHAT YOU SHOULD BRING TO CLASS EVERY DAY:

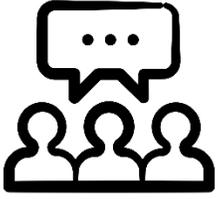
1. A laptop or notebook for note taking. *Note: educational research shows that students learn more by handwriting notes!*
2. Extra blank paper for drawings, notes, activities etc.
3. 3 x 5 index cards.
4. Your laptop/tablet/smartphone enabled for UNC wi-fi access.

COURSE REQUIREMENTS

1. **Class participation** is an important part of this class and will contribute significantly to your learning experience. Active participation requires being present for the entire class period and taking part in the discussion.



- a) **Discussion questions (5%):** Questions or ideas that you would like to discuss during class time should be posted to the appropriate class Forum on Sakai the day prior to that class (10 pm deadline). Please do not post duplicate questions (i.e. if the question you have formulated has already been posted, please submit an alternative question). This means you'll need to read what others have submitted before you submit, so please don't leave this until the last minute! Discussion questions will be scored as: 0 (no question), 0.5 (general questions such as those regarding methods or procedures), 1 (insightful questions that display critical thinking and that the reading has been considered carefully).
- b) **In-class participation (5%):** Participating in seminars and discussions involves developing a particular skill set. Therefore, you should expect to improve at discussion over time just like you would in other skills like reading, writing, or learning another language. Focus on improving your skills! I am more interested in your willingness to explore ideas - out loud - than "getting it right" (there are usually more than one right answer anyway). For each discussion class, you will have a few minutes at the end of the class period to reflect. You will turn reflections in at the end of class for grading. In class participation will be scored as: 0 (no participation/no notes), 0.5 (minimal contribution), 1 (insightful comments/questions). For some classes, you might also complete short quizzes, or contribute materials for discussion. These small assignments will also contribute to your participation grade.



2. **Discussion:** For each of the primary papers we will read in class, 2 students will lead a discussion period on one of the primary papers. You should use visual aids, do additional research on your own to enrich the discussion (e.g., look at related papers, Tedtalks, movies, podcasts, etc), and bring some discussion questions we can all ponder together. The goal of these discussion periods is to determine how well the science is represented by the media. Discussion leaders will also provide the class with a reflection question designed to extract a main theme from the information that they provide to us. **At a minimum**, the discussion should address:

- 1) Question – what is the main research question in the primary paper?
- 2) Enough background material for the class to understand the paper (you might need to incorporate some information from a Biopsychology or Neuroscience textbook)
- 3) Methods - how did the researchers address this question?
- 4) Main findings of the paper
- 6) How the media coverage portrayed the findings. Was it accurate? Why or why not?
- 7) How is the topic covered by the media more generally?
- 8) Additional examples of media coverage of the topic

Again, *these points are the minimum points to be addressed in your discussion*. You should move well beyond the material I have provided for you when you do your own research. Also note that your discussion should be engaging and high energy – you should attempt to facilitate discussion rather than simply presenting information. This assignment will require a *significant* amount of time to prepare, and I strongly encourage you to meet with me to make sure you're on the right track.

3. **Critical Reviews:** You will submit a brief written review for 8 of the 16 Journal Club classes (1 page). You will sign up for which ones you'd like to complete in advance so that we consistently have a very well-prepared audience. **Please submit a review for the practice journal club** so that I can provide you with feedback early in the semester. Your review will focus on the primary research paper assigned for that class. In the paper, you will (at a MINIMUM): 1) briefly describe the topic (what research question or hypothesis is addressed), 2) describe how the topic was addressed by the primary research paper (methods), 3) and how the topic was covered in the media. Carefully consider how well the research was represented in the media coverage. What aspects of the research were covered well, and what important aspects were either omitted or distorted? **These reviews should be submitted via Sakai the day before class (10 pm deadline).**





4. **60 second podcast:** Over the semester, you will try your hand at summarize complex scientific knowledge into a coherent story that a non-scientist/non-expert can understand and find interesting. For this assignment, you will first choose a broad topic that you find interesting (e.g., Alzheimer's disease, how exercise affects the brain, etc.). Next, you will find a primary, peer-reviewed paper on that topic that you will summarize in a 60 second podcast. You will tackle this assignment through several smaller steps, as outlined below (modeled after this assignment: <http://moirabradford.web.unc.edu/60-second-mind/>). Examples of 60 second science podcasts can be found here:

<http://www.scientificamerican.com/podcast/60-second-mind/>

Assignment 1: Choose a topic: First, select a topic that you find interesting. Maybe begin with a casual search of the internet to see if you can track down media coverage of your topic. Most importantly, you will need to find a recent primary paper that addresses your topic of choice. *Please make sure the research has been published recently (not later than 2013) and has not already been covered on 60-Second Mind.* After you have thoroughly read your paper, you will write a short, concise paragraph that explains the research and its significance (10 sentences or less). Be sure to include:

- a. What does it say? (Main finding)
- b. How did they do it? (Method)
- c. What does it mean? (Implications)
- d. Please submit both your paragraph and the primary paper to Sakai ('Assignments') no later than 02/11 (10pm deadline).

Assignment 2: The bigger picture: No single research study stands alone. For example: What we know about Alzheimer's disease comes from many labs who strive to understand what it is, and how to prevent or cure it. This is true for all science. It is difficult to really understand the results of one study without appreciating how it fits in with other work. We need a bigger picture.

For your podcast, do some research to find 3-5 additional primary papers that cover the same topic as your original primary paper (I'll give you some tips on how to do this in class). As you read these papers, think about how the work fits together into a bigger picture. Do the papers come to the same or different conclusions? What story do you think emerges from the papers? Is the story clear to you? Why or why not? Here are some guidelines from the writing center: <https://writingcenter.unc.edu/tips-and-tools/annotated-bibliographies/>. You will be doing a 'combination' annotated bibliography. These kinds of annotations aim to summarize, describe, and evaluate sources. Your annotation for each paper should include:

- a. A description of the main findings
- b. A description of the method
- c. The implication of the research
- d. A statement about how the research fits into your topic's bigger picture
- e. Please submit the papers and your annotated bibliography to Sakai ('Assignments') no later than 03/08 (10pm deadline).

Assignment 3: Preliminary transcript: Sixty seconds isn't a lot of time! How are you going to communicate an essential research finding to nonscientists in that time? Excellent understanding of your content, and careful editing! We will start with a transcript that will be longer than the one you record. You'll use this longer transcript as your template. Sixty seconds, speaking quickly, but clearly, will get you to about 200 words. For this first draft, you will write a 350-450 word transcript, using the same structure you use in your final project. Your preliminary transcript will:

- a. Summarize the main research finding from your paper in 350-450 words
- b. Be organized just like a 60-Second Science podcast
 - i. A 'hook' to get your listener interested
 - ii. Summary of main finding(s)
 - iii. Summary of how they figure that out (Method)
 - iv. What does it mean? (Implications to general audience/field of study)
 - v. Where to find the article (Citation)
- c. Use an engaging tone!
- d. Be without grammatical/mechanical errors
- e. Please submit your transcript to Sakai ('Assignments') no later than 03/20 (10pm deadline).

Final Project: 60-Second Mind Podcast: Ready? You got this! Compose and record a sixty-second audiofile podcast (MP4 format). You are welcome to use music and/or other sound effects to enhance your final product. Your final podcast will:

- a. Highlight a recent research finding
- b. Be formatted in the style of scientificamerican.com's 60-Second Science:
 - i. A 'hook' to get your listener interested
 - ii. Summary of main findings
 - iii. Summary of how they figure that out (Method)
 - iv. What does it mean? (Implications to general audience/implications to the field of study)
 - v. How to find the article (Citation)
- c. Use an engaging tone
- d. Be *clearly delivered* on a recording exactly sixty seconds in length (ok, you can have a few seconds leeway – but just a few!)
- e. Include the final transcript that matches the podcast
- f. Include a bibliography (Use whatever citation style you prefer)
- g. Be without grammatical/mechanical errors
- h. Upload your podcast and your final transcript to the 'Podcast' tool on the Sakai site no later than 04/23 (10 pm deadline)

5. **Final Exam:** We are required to have our final exam on **May 6th at 8am** (I'm really sorry about that). If you have two exams at the same time or three exams within 24 hours and you want to reschedule the exam, please see an academic advisor for an exam excuse form. *The make-up final exam will take place on May 7th at 8am. The final exam is an open book exam in which you will read a primary research paper and an accompanying news article and provide a critique of the media coverage of the primary research paper and answer 3-4 short answer questions about neuroscience, society, and the media. I would prefer you do this on a digital device, so please bring a laptop to the final exam. *All of your assignments help you build the skills needed to critically read primary research papers, summarize and communicate the contents of the papers, and critically evaluate media coverage of neuroscience research. The final exam is simply a final demonstration of how well you've acquired these skills and reflected on the importance of having these skills.*

****Please note: all written assignments must be written in your OWN words with appropriate citations. Quoting passages from your sources (yes, even in quotation marks) will result in a grade of 0. I am required**

by the University to report all instances of plagiarism or suspected plagiarism. If you are not sure how to paraphrase or avoid plagiarism, please see me. A PDF with information about to avoid plagiarism can be found on the Sakai site.

GRADES

10% Participation
20% Critical Reviews
20% Discussion
20% Final Exam
30% Podcast



Letter Grade Assignments

A = 94-100
A- = 90-93
B+ = 87-89
B = 84-86

B- = 80-83
C+ = 77-79
C = 74-76
C- = 70-73

D+ = 67-69
D = 60-66
F = 0-59

Final grades are rounded (.4 down and .5 up).
For example 89.4 = 89/B+; 89.5 = 90/A-.

Here is an explanation of grades from the Undergraduate Bulletin (<http://www.catalog.unc.edu/policies-procedures/attendance-grading-examination/>):

ACADEMIC INTEGRITY

All work that you do for this class must be completed according to the UNC Honor Code. It is your responsibility to speak with me if you are not sure what constitutes plagiarism or have any questions about the Honor Code. If you have not done so previously, please review the academic code:

http://integrity.unc.edu/hc_handout.html. All suspected cases of academic misconduct must be reported to the Office of the Dean of Students, and thus I am compelled to do so if I suspect academic misconduct of any kind.



DIGITAL ETIQUETTE



It might be necessary to use a digital device during class time. Please be respectful of your classmates and restrict your use to course content. Hopefully it will never come to this – but I will ask you to put your device away for the rest of the class, and you will forfeit your participation points for that day if you chose to distract your peers during class time.

OTHER RESOURCES ON CAMPUS

The Writing Center is a wonderful resource to use if you need some help with your writing and editing skills, and The Learning Center would love to coach you – they have excellent coaching opportunities for things like time management, study skills, and goal setting. Give them a try!



If you experience difficulty during the semester that interferes with your ability to come to class or complete your work, including difficulty securing food or housing, or stress and mental health issues, I urge you to contact the Office of the Dean of Students (in person or by phone 919-966-4042) or Counseling and Psychological Services (in person or by phone 919-966-3658). If you see that someone in our class is struggling please let me know. We are a learning community and can help each other be successful.

If you require an accommodation, please contact the Office of Accessibility and Resources. If you have accommodations to take exams at the Office of Accessibility Resources, please let me know as soon as possible.

Course Schedule

Changes to the Syllabus: If a change to the syllabus becomes necessary, I will announce this in class or by email. **Note: there may be instances where I assign additional short readings, podcasts, TEDtalks, or movies to watch. I will announce these additions in class and on the Sakai site.** Please make sure you check your email and/or the Sakai site regularly for updates.

Date	Topic	What should I be reading? What's due?
01-09	Introduction, Overview	Please look carefully at the syllabus before coming to class
01-11	Behavioral neuroscience and the media - Overview	<ol style="list-style-type: none">1. Read: Blakelee et al. (2012) <i>Physiol Behav.</i> 107(5):617-22.2. Read: http://www.motherjones.com/media/2014/06/hodor-game-of-thrones-brain-speech3. Listen to the inquiring minds podcast: https://soundcloud.com/inquiringminds/38-sam-kean-these-brains-changed-neuroscience-forever4. Submit discussion questions on Sakai in the Forum
01-14	Scientists as public communicators PLEASE BRING YOUR LAPTOP TO CLASS	<ol style="list-style-type: none">1. Read: Peters (2013) (found in Resources folder)2. Submit discussion questions

01-16	I don't know what to believe	<ol style="list-style-type: none"> 1. Visit: http://www.senseaboutscience.org/ 2. Read: Sense about Science (resources folder) 3. Submit discussion questions
01-18	Losing our minds in the age of brain sciences	<ol style="list-style-type: none"> 1. Read: Satel and Lilienfeld, Introduction Read: https://www.usatoday.com/story/tech/columnist/vergano/2013/06/22/brain-washed-satel-carnegie/2445953/ 2. Submit discussion questions
01-21	No classes	
01-23	How to read a paper; overview of 60 second podcast assignment	<ol style="list-style-type: none"> 1. Reading on Sakai: How to read a paper 2. Listen to a few of these podcasts: https://www.scientificamerican.com/podcast/60-second-mind/ https://www.npr.org/series/423302056/hidden-brain
01-25	<p>- What is brain imaging?</p> <p>-----</p> <p>- Review of neuroanatomy</p>	<ol style="list-style-type: none"> 1. Read: Satel and Lilienfeld, Ch 1 2. Read Bennet et al. (2010) 3. Submit discussion questions <p>-----</p> <ol style="list-style-type: none"> 1. Review on Sakai (under readings): Neuroanatomy 2. In class quiz
01-28	Journal club practice: Dog Brain Scan Study Shows Mind Of Man's Best Friend, fMRI Scientists Say	<ol style="list-style-type: none"> 1. Read: http://www.huffingtonpost.com/2012/05/07/dog-brain-scan-mind-mri_n_1495791.html Read: Berns et al. (2012) Functional MRI in Awake Unrestrained Dogs. PLoS One. 2012;7(5):e38027. doi: 10.1371/journal.pone.0038027. Epub 2012 May 11. 2. Submit Critical Review
01-30	Selection of journal club topics, group meetings to plan journal clubs	Please bring your calendar and a laptop to class to plan

02-01	<p>How do we study the link between brain and behavior?</p> <p>The use of animal models to understand human behavior.</p>	<p>1. Read: Experimental design (PDF in resources folder)</p> <p>Read: http://blogs.nature.com/naturejobs/2017/01/20/defending-science-by-opening-up-lessons-from-understanding-animal-research/</p>
02-04	<p>Media Reporting of Neuroscience Depends on Timing, Topic and Newspaper Type</p>	<p>1. Read: van Atteveldt et al. (2014)</p> <p>2. Submit discussion questions</p>
02-06	<p>Group meetings to plan journal clubs</p>	
02-08	<p>Creating scientific curiosity</p>	<p>1. Watch the documentary: The Most Unknown</p> <p>2. Submit discussion questions</p>
02-11	<p>Guest: David Kirby, Author of White Coat in Hollywood</p> <p>We will have a skype interview with Dr. Kirby</p>	<p>1. Read: http://blogs.nature.com/naturejobs/2014/07/03/how-to-become-a-science-advisor-for-films-and-tv-shows/</p> <p>Read: https://www.nature.com/naturejobs/science/articles/10.1038/nj7507-113a</p> <p>2. Write 3 discussion questions for Dr. Kirby. Post these to Sakai in the Forum.</p> <p>Podcast assignment 1 due: Topic Choice</p>
02-13	<p>Journal Club 1: 'Vampire therapy' could reverse ageing, scientists find.</p>	<p>1. Read: http://www.telegraph.co.uk/science/science-news/10807478/Vampire-therapy-could-reverse-ageing-scientists-find.html</p> <p>Read: Villeda et al (2014) Young blood reverses age-related impairments in cognitive function and synaptic plasticity in mice. <i>Nat Med.</i> 20(6):659-63.</p> <p>2. Submit Critical Review</p>
02-15	<p>Journal Club 2: Sleep Deprivation Could Speed Up The Onset Of Alzheimer's</p>	<p>1. Read: https://www.irishtimes.com/news/health/sleep-deprivation-linked-to-alzheimer-s-disease-study-suggests-1.3456020</p> <p>Read: Shokri-Kojori E, et al. (2018). β-Amyloid accumulation in the human brain after one night of sleep deprivation. <i>Proceedings of the National Academy of Sciences.</i> 115 (17) 4483-4488.</p> <p>2. Submit Critical Review</p>

02-18	Journal Club 3: Rats feel regret like humans, and it might help us better understand our feelings.	<p>1. Read: http://www.washingtonpost.com/news/to-your-health/wp/2014/06/10/rats-feel-regret-like-humans-and-it-might-help-us-better-understand-our-feelings/</p> <p>Steiner & Redish (2014). Behavioral and neurophysiological correlates of regret in rat decision-making on a neuroeconomic task. Nat Neurosci. 2014 Jun 8. doi: 10.1038/nn.3740.</p> <p>2. Submit Critical Review</p>
02-20	The Buyologist is in: The rise of neuromarketing	<p>1. Read: Satel and Lilienfeld, Ch 2</p> <p>2. Listen to: http://knowledge.wharton.upenn.edu/article/business-insights-at-the-intersection-of-neuroscience-and-marketing/</p> <p>3. Submit discussion questions</p>
02-22	Journal Club 4: How our powerful memories can also bias our decisions	<p>1. Read: http://articles.latimes.com/2012/oct/11/science/la-sci-sn-memories-bias-decisions-20121011</p> <p>Read: Wimmer GE, Shohamy D (2012) Preference by association: how memory mechanisms in the hippocampus bias decisions. Science, 338(6104):270-3.</p> <p>2. Submit Critical Review</p>
02-25	Journal Club 5: How Marketers Are Plotting To Use Neuroscience To Control What You Buy	<p>1. Read: http://www.huffingtonpost.com/2015/05/11/marketers-neuroscience_n_7256602.html</p> <p>Read: Plassmann H, Weber B, et al. (2015) Individual Differences in Marketing Placebo Effects: Evidence from Brain Imaging and Behavioral Experiments. Journal of Marketing Research. Vol. LII, 493–510</p> <p>2. Submit Critical Review</p>
02-27	***Journal Club 6: Super Bowl ads fumble, brain scans show	<p>1. Read: http://www.reuters.com/article/television-nfl-super-advertising-scans-d-idUSL0549647620070205;</p> <p>Visit: http://www.fkfappliedresearch.com/FKF.html</p> <p>2. Submit Critical Review</p>
03-01	Media lab	<p>Meet in the media lab for a tutorial on how to use the equipment there to produce a podcast. You might also use this time to meet with a librarian for help with the research aspect of your podcast. You can start by using the Ask a Librarian service: http://asklib.hsl.unc.edu/. The librarians who handle questions through this service can also refer to the most appropriate subject librarian across the libraries for the particular research topic you are pursuing.</p>

03-04	Ramon y Cajal exhibit "Beautiful Brain" at the Ackland Art museum	Please meet at the Ackland Museum of Art to view the exhibit
03-06	Addiction and the Brain- Disease Fallacy	Listen to: https://www.npr.org/sections/health-shots/2017/01/26/511455876/art-exhibition-celebrates-drawings-by-the-founder-of-modern-neuroscience 1. Read: Satel and Lilienfeld, Ch 3 Read: https://www.bostonglobe.com/ideas/2017/06/22/calling-brain-disease-makes-addiction-harder-treat/ehaJs5ZYIXpPottG89KOGK/story.html 2. Submit discussion questions
03-08	Journal Club 7: Scientist Blasts Report Linking Casual Pot Smoking With Brain Abnormalities.	1. Read: http://www.huffingtonpost.com/2014/04/22/marijuana-brain-study_n_5170422.html Read: Gilmann et al. (2014) Cannabis use is quantitatively associated with nucleus accumbens and amygdala abnormalities in young adult recreational users. J Neurosci. 34(16):5529-38. 2. Submit Critical Review Podcast assignment 2 due: Annotated bibliography
03-11	Spring Break!	
03-13	Spring Break!	
03-15	Spring Break!	
03-18	Journal Club 8: How Alcohol "Hijacks" Dopamine Pathways	1. Read: https://www.thefix.com/how-alcohol-hijacks-dopamine-pathways Petruccelli et al. (2018) Alcohol Activates Scabrous-Notch to Influence Associated Memories. Neuron 100: 1209-1223. 2. Submit Critical Review
03-20	Journal Club 9: You may be a pizza-holic: Research says some foods addicting	1. Read: http://www.cnn.com/2015/10/23/health/pizza-and-other-foods-addicting/index.html Read: Schulte et al. (2015) Which foods may be addictive? The roles of processing, fat content, and glycemic load. PLoS One. 2015 Feb 18;10(2):e0117959. doi: 10.1371/journal.pone.0117959. eCollection 2015. 2. Submit Critical Review

		Podcast assignment 3 due: Transcript
03-22	Media lab	Use this time to work in the media lab on your podcast. Equipment will be reserved for your use, or you can request a tutorial during this time
03-25	The telltale brain: Neuroscience and deception	<p>1. Read: Satel & Lilienfeld 4</p> <p>Read: http://alumni.berkeley.edu/california-magazine/just-in/2015-07-23/catching-brain-lie-mind-reading-deception-detection-sci-fi-or</p> <p>2. Listen to: https://www.npr.org/templates/story/story.php?storyId=87922568</p> <p>3. Submit discussion questions</p>
03-27	***Journal Club 10: How To Build The Perfect Lie Detector	<p>1. Read: http://www.forbes.com/sites/robertszscherba/2014/09/10/how-to-build-the-perfect-lie-detector/</p> <p>2. Submit Critical Review</p>
03-30	Journal Club 11: Don't even think about lying. Neuroscientist Uses Brain Scan to See Lies Form	<p>1. Read: http://archive.wired.com/wired/archive/14.01/lying.html; http://www.npr.org/templates/story/story.php?storyId=15744871; Langleben et al. (2005) Telling truth from lie in individual subjects with fast event-related fMRI. Hum Brain Mapp. 26(4):262-72.</p> <p>2. Submit Critical Review</p>
04-01	My Amygdala Made Me Do It: The Trials of Neurolaw	<p>1. Read: Satel & Lilienfeld 5</p> <p>2. Listen to this podcast: https://www.wnycstudios.org/story/317421-blame</p> <p>3. Submit discussion questions</p>
04-03	Journal Club 12: Lonely People's Brains Work Differently	<p>1. Read: https://www.yahoo.com/health/lonely-peoples-brains-work-differently-125944609988.html</p> <p>Read: Cacioppo et al. (2015) Implicit attention to negative social, in contrast to nonsocial, words in the Stroop task differs between individuals high and low in loneliness: Evidence from event-related brain microstates. Cortex. 2015 Sep;70:213-33. doi: 10.1016/j.cortex.2015.05.032.</p> <p>2. Submit Critical Review</p>
04-05	Journal Club 13: Are You Impulsive? Maybe Your Brain Is to Blame	<p>1. Read: https://www.livescience.com/54310-are-you-impulsive-maybe-your-brain-is-to-blame.html</p> <p>Read: Homes et al. (2016) Individual Differences in Cognitive Control Circuit Anatomy Link Sensation Seeking, Impulsivity, and Substance Use. J Neurosci. 36:4038-4049</p> <p>2. Submit Critical Review</p>

04-08	Journal Club 14: Psychopaths' Brains Don't Grasp Punishment, Scans Reveal	1. Read: http://www.livescience.com/49613-psychopaths-brains-punishment.html Read: Decety et al. (2013) An fMRI study of affective perspective taking in individuals with psychopathy: imagining another in pain does not evoke empathy. Front Hum Neurosci. 2013 Sep 24;7:489. doi: 10.3389/fnhum.2013.00489. eCollection 2013. 2. Submit Critical Review
04-10	Use this time to work in the media lab on your podcast.	Use this time to work in the media lab on your podcast. Equipment will be reserved for your use, or you can request a tutorial during this time
04-12	The Future of Blame: Neuroscience and Moral Responsibility	1. Read: Satel & Lilienfeld 6 2. Submit discussion questions
04-15	Journal Club 15: The science of forgiveness: "When you don't forgive you release all the chemicals of the stress response"	1. Read: http://www.salon.com/2015/08/24/the_science_of_forgiveness_when_you_dont_forgive_you_release_all_the_chemicals_of_the_stress_response/ Read: Ricciardi E et al. (2013) How the brain heals emotional wounds: the functional neuroanatomy of forgiveness. Front Hum Neurosci. 2013 Dec 9;7:839. doi: 10.3389/fnhum.2013.00839. eCollection 2013. 2. Submit Critical Review
04-17	Journal Club 16: Directing Magnetic Energy Into The Brain Can Reduce Belief In God, Prejudice Toward Immigrants	1. Read: http://www.medicaldaily.com/directing-magnetic-energy-brain-can-reduce-belief-god-prejudice-toward-immigrants-357194 Read: Holbrook et al. (2015) Neuromodulation of Group Prejudice and Religious Belief. Soc Cogn Affect Neurosci. 2015 Sep 4. pii: nsv107. 2. Submit Critical Review
04-19	No classes	
04-23	Neuroscience and public policy	1. Read: Mervis et al. (2009); Seymour & Vlaev 2. Submit discussion questions Podcasts due
04-25	Podcast party! (with snacks!)	We will listen to Podcasts in class!
04-27	Reflection and course evaluations	

--	--	--

Final Exam: Monday May 6th, 8am