

Schedule

Week	Day	Date	Topic	Guest Speaker	Readings	Due
1	TH	2-Sep	Introduction & Course Expectations			
2	T	7-Sep	Fundamentals of Science and How We Study the Brain		CH.1 JHANGIANI et al. CH.2 JHANGIANI et al.	September 10th is last day to drop a course without a "W" grade
2	TH	9-Sep	Research Ethics		CH.3 JHANGIANI et al.	Team Charter Due by Friday, September 10th
3	T	14-Sep	Sources of Information	Laura Mullen (Rutgers Behavioral Sciences Librarian)		
3	TH	16-Sep	Ethics Training: CITI TRAINING			Topic Approval Due by Friday September 17th
4	T	21-Sep	Open Science/Replication		- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything as Significant. Psychological Science, 22(11), 1359–1366. https://doi.org/10.1177/0956797611417632 (https://doi.org/10.1177/0956797611417632) (here is great youtube video that summarizes the article: https://www.youtube.com/watch?v=bf3GqyBRgzY&t=562s) (https://www.youtube.com/watch?v=bf3GqyBRgzY&t=562s) - Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2018). The preregistration revolution. Proceedings of the National Academy of Sciences, 115(11), 2600. https://doi.org/10.1073/pnas.1708274114 (https://doi.org/10.1073/pnas.1708274114)	

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4	Th	23-Sep	Open Science/Replication		- Brandt, M. J., IJzerman, H., Dijksterhuis, A., Farach, F. J., Geller, J., Giner-Sorolla, R., Grange, J. A., Perugini, M., Spies, J. R., & van 't Veer, A. (2014). The Replication Recipe: What makes for a convincing replication? <i>Journal of Experimental Social Psychology</i> , 50, 217–224 https://doi.org/10.1016/j.jesp.2013.10.005 (https://doi.org/10.1016/j.jesp.2013.10.005) - Frank, M. C., & Saxe, R. (2012). Teaching Replication.Perspectives on Psychological Science,7(6),600–604. https://doi.org/10.1177/1745691612460686	1 page summary, CITI training, and IRB forms due by Friday September 24th
5	T	28-Sep	Psychological Measurement		CH.4 JHANGIANI et al.	
5	Th	30-Sep	Experiment Basics		CH.5 JHANGIANI et al.	
6	T	5-Oct	Exploring Cognition Through the Eyes: Reading and Eye-tracking		- Rayner, K., Schotter, E. R., Masson, M. E. J., Potter, M. C., & Treiman, R. (2016). So Much to Read, So Little Time: How Do We Read, and Can Speed Reading Help? <i>Psychological Science in the Public Interest</i> , 17(1), 4–34 https://doi.org/10.1177/1529100615623267 (https://doi.org/10.1177/1529100615623267) - Slattery, T. J. Eye movements: From psycholinguistics to font design. In <i>Digital Fonts and Reading</i> (eds Dyson, M. C. & Yuen, C. Y.), 54–78 (World Scientific, 2016).	
6	TH	7-Oct	Exploring Cognition Through the Eyes: Pupillometry	Sarah Colby (University of Iowa): Pupillometry	- Torres A and Hout M (2019) Pupils: A Window Into the Mind. <i>Front. Young Minds</i> . 7:3. doi: 10.3389/frym.2019.00003 - Laeng, B., Sirois, S., & Gredebäck, G. (2012). Pupillometry: A Window to the Preconscious? <i>Perspectives on Psychological Science</i> , 7(1), 18–27. https://doi.org/10.1177/1745691611427305 (https://doi.org/10.1177/1745691611427305)	Preregistration due by Friday October 8th
7	T	12-Oct	Exploring Cognition Through the Eyes: Eye-tracking and Pupillometry (RuCCS eye-tracking lab)			
7	TH	14-Oct	Exploring Cognition Through the Brain: EEG	McCall Syrett (Villanova University): EEG	- Allopenna, P. D. , Magnuson, J. S. , & Tanenhaus, M. K. (1998). Tracking the time course of spoken word recognition using eye movements: Evidence for continuous mapping models. <i>Journal of Memory and Language</i> , 38, 419–439.	

Week	Day	Date	Topic	Guest Speaker	Readings	Due
8	T	19-Oct	Exploring Cognition Through the Brain : EEG	Ryan Rhodes (Rutgers University): EEG	- Etienne, A., Laroia, T., Weigle, H., Afelin, A., Kelly, S. K., Krishnan, A., & Grover, P. (2020). Novel Electrodes for Reliable EEG Recordings on Coarse and Curly Hair. <i>BioRxiv</i> , 2020.02.26.965202. https://doi.org/10.1101/2020.02.26.965202 (https://doi.org/10.1101/2020.02.26.965202)	
8	TH	21-Oct	Exploring Cognition Through the Brain: EEG			
9	T	26-Oct	Understanding Cognition Through the Brain: fMRI	Melissa Thye (University of Edinburgh): fMRI/sEEG	- Racine, E., Bar-Ilan, O., & Illes, J. (2005). FMRI in the public eye. <i>Nature Reviews Neuroscience</i> , 6(2), 159–164. https://doi.org/10.1038/nrn1609 (https://doi.org/10.1038/nrn1609) - Turner, R. (2016). Uses, misuses, new uses and fundamental limitations of magnetic resonance imaging in cognitive science. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 371(1705). https://doi.org/10.1098/rstb.2015.0349 - (https://doi.org/10.1098/rstb.2015.0349) Amanamba U., Sojka A., Harris S., Bucknam M.,& Hegdé. J. (2020) A Window Into Your Brain: How fMRI Helps Us Understand What Is Going on Inside Our Heads. <i>Front. Young Minds</i> . 8:484603. doi: 10.3389/frym.2020.484603	
9	TH	28-Oct	Understanding Cognition Through the Brain: fMRI (The Center for Advanced Human Brain Imaging Research (CAHBIR))			

Week	Day	Date	Topic	Guest Speaker	Readings	Due
10	T	2-Nov	Exploring Cognition Through the Web		- Crump, McDonnell, Gureckis (2013). Evaluating Amazon's Mechanical Turk as a Tool for Experimental Behavioral Research - Bridges, D., Pitiot, A., MacAskill, M. R., & Peirce, J. W. (2020). The timing mega-study: Comparing a range of experiment generators, both lab-based and online. PeerJ, 8, e9414. https://doi.org/10.7717/peerj.9414 - (https://doi.org/10.7717/peerj.9414 -) - Grootswagers, T. A primer on running human behavioral experiments online. Behav Res 52, 2283–2286 (2020). https://doi.org/10.3758/s13428-020-01395-3 - Gagné, N., & Franzen, L., Ph.D. (2021, August 30). How to run behavioural experiments online: best practice suggestions for cognitive psychology and neuroscience. https://doi.org/10.31234/osf.io/nt67j (https://doi.org/10.31234/osf.io/nt67j)	
10	TH	4-Nov	No Class - Psychonomics No Calss			
11	T	9-Nov	Introduction to Python/PsychoPy and Pavlovia			
11	TH	11-Nov		Lucia Cherep (Univeristy of Arizona): VR		
12	T	16-Nov	Introduction to Python/PsychoPy and Pavlovia & Normalizing Errors			
12	TH	18-Nov	Programming Experiments			
13	T	23-Nov	Programming Experiments			
13	TH	25-Nov	Thanksgiving Break (No Class)			
14	T	30-Nov	Data Collection			Programmed Experiment Due by November 30th.

Week	Day	Date	Topic	Guest Speaker	Readings	Due
14	TH	2-Dec	Data Collection			
15	T	7-Dec	Data Analysis			
15	TH	9-Dec	Data Analysis			Methods and Data Analysis Write-Up Due by December 10th
16	T	14-Dec	Class Presentations			
16	TH	16-Dec	Class Presentations			
		12/20/2021	FINAL EXAMS			Paper Due by
		-	(DECEMBER 20th-			December
		12/23/2021	DECEMBER 23rd)			23rd