

PSY 548

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1 Home

About

Welcome to PSY 548.

2 Schedule

January 13-17

Thursday, January 16

2.0.0.1 Topics

- Structure of the course
- Levels of analysis
- Causality in brain and behavior
- Does neuroscience need behavior? If so, what does psychology need?

2.0.0.2 Readings

- Required:
 - (Krakauer2017-xl?)
 - (Parada2018-rp?)
- Optional:
 - (Siddiqi2022-wl?)
 - (Churchland1988-aj?)
 - (Favela2020-uc?)
 - (Ross2024-nr?)

2.0.0.3 Materials

- [Slides](#)
- [Exercise 01](#) assigned | [PDF](#) |

January 20-24

2.0.1 Wednesday, January 22

- [Exercise 01](#) write-up due | [Canvas dropbox](#) |

Thursday, January 23

2.0.1.1 Topics

- Neuroanatomy lab

2.0.1.2 Readings

- [Neuroanatomy notes](#)

2.0.1.3 Materials

- [Slides](#). [PDF](#)
- [Allen Brain Atlas](#).
- [Exercise 02](#) distributed | [PDF](#) |

January 27-31

Wednesday, January 29

- [Exercise 02](#) due | [Canvas dropbox](#) |

Thursday, January 30

2.0.0.1 Topics

- Cellular neuroscience I
 - Anatomy
 - Physiology
 - * Resting potential

2.0.0.2 Readings

- [Cellular neuroscience notes](#) | [PDF](#) |
- Optional:
 - (Zeng2017-sg?)
 - (Oliveira2015-ky?)
 - (Distefano-Gagne2023-gt?)

2.0.0.3 Materials

- [Slides](#) | [PDF](#) |
- [Exercise 03](#) distributed. | [PDF](#) |

February 3-7

Thursday, February 06

2.0.0.1 Topics

- Cellular neuroscience II
 - Action potential
 - Synaptic transmission
- [Exercise 04](#) assigned. | [PDF](#) |

2.0.0.2 Readings

- [Cellular neuroscience notes](#)

2.0.0.3 Materials

- [Slides](#)

February 10-14

2.0.1 Wednesday, February 12

- [Exercise 03](#) write-up due. | [Canvas dropbox](#) |

Thursday, February 13

2.0.1.1 Topics

- Neurochemistry
 - Neurotransmitters
 - Hormones
- Neurocomputing

2.0.1.2 Readings

- [Neurochemistry notes](#)
- Optional: ([Sarkar2016-qf?](#)).

2.0.1.3 Materials

- [Slides](#)
- [Exercise 05](#) distributed | [PDF](#) |

February 17-21

2.0.1 Wednesday, February 19

- [Exercise 04](#) write-up due | [Canvas dropbox](#) |

Thursday, February 20

2.0.1.1 Topics

- Methods in neuroscience

2.0.1.2 Readings

- Watch: (Mitsbmm2019-oj?)
- Review: (noauthor__undated-wk?)
- Recommended:
 - (Cohen2017-og?)
 - (Hillman2014-xv?)
- Optional:
 - (Koch2022-wk?)

2.0.1.3 Materials

- [Methods notes](#)
- [Exercise 06](#) distributed | [PDF](#) |

February 24-28

2.0.1 Wednesday, February 26

- [Exercise 05](#) write-up due | [Canvas dropbox](#) |

Thursday, February 27

2.0.1.1 Topics

- Evolution of the nervous system

2.0.1.2 Readings

- Required:
 - (Charvet2012-bg?)
 - (hofman__evolution__2014?)
- Optional:
 - (Castrillon2023-mt?)

2.0.1.3 Materials

- [Notes](#)
- [Exercise 07](#) distributed | [PDF](#) |

March 3-7

2.0.1 Wednesday, March 05

- [Exercise 06](#) write-up due | [Canvas dropbox](#) |
- [Final project](#) proposal due

Thursday, March 06

2.0.1.1 Topics

- Development of the nervous system

2.0.1.2 Readings

- Required:
 - (Cao2017-bl?)
 - (Blumberg2023-fs?)
- Optional:
 - (Larsen2023-wx?)
 - (Rakic2009-jk?)

2.0.1.3 Materials

- [Notes](#)
- [Exercise 06](#) distributed | [PDF](#) |

March 10-14 *Spring Break*

March 17-21

2.0.1 Wednesday, March 19

- [Exercise 07](#) write-up due | [Canvas dropbox](#) |

Thursday, March 20

NO CLASS

March 24-28

2.0.1 Wednesday, March 26

- [Exercise 08](#) write-up due | [Canvas dropbox](#) |

Thursday, March 27

2.0.1.1 Topics

- Perception & action

2.0.1.2 Readings

- (Khalsa2018-gf?)
- (Shenoy2013-zi?)

2.0.1.3 Materials

- [Perception notes](#)
- [Action notes](#)

March 31 - April 4

Thursday, April 03

2.0.0.1 Topics

- Cognition & Language

2.0.0.2 Readings

- (Miller2001-qu?)
- (Tuckute2024-gv?)

2.0.0.3 Materials

- [Notes](#)

April 7-11

Thursday, April 10

2.0.0.1 Topics

- Neuroscience of emotion

2.0.0.2 Readings

- (Malezieux2023-as?)
- (Watabe-Uchida2017-gi?)

2.0.0.3 Materials

- [Notes](#)

April 14-18

Thursday, April 17

2.0.0.1 Topics

- Disorder & disease I

2.0.0.2 Readings

- (Howes2023-vk?)
- (Volk2015-ki?)

2.0.0.3 Materials

- [Notes](#)

April 21-25

Thursday, April 24

2.0.0.1 Topics

- Disorder & disease II

2.0.0.2 Readings

- (Moncrieff2022-os?)
- (Namkung2017-gc?)

2.0.0.3 Materials

- [Notes](#)

April 28 - May 2

Thursday, May 01

2.0.0.1 Topics

- Beethoven and the Cerebral Symphony
- Student presentations

May 4-9

2.0.1 Thursday, May 08

- [Final Project](#) write-up due | Canvas dropbox