PSYCH 260.001

Fall 2025

2026-01-20

The Neurological Bases of Human Behavior

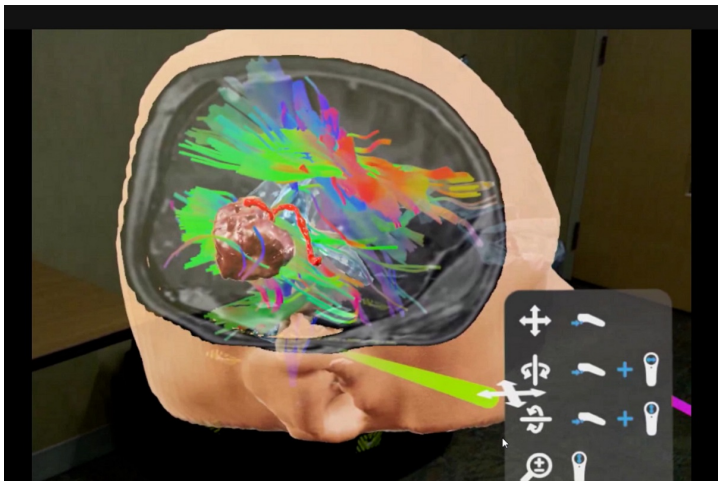

Figure 1: "A GPS for your mind" (2023)

Themes

There is no more fascinating or challenging field of inquiry than the nature, origin, structure, and functioning of the human mind and the behavior it enables. This course will examine human mental states and observable behaviors from a biological basis, especially focusing on the evolution, development, structure, and functioning of the nervous system.

> **Note**
>
> Textbook reading assignments in the Watson & Breedlove text, *The Mind's Machine* will be indicated by the following shorthand: 'MM pp 3-15'. This means to read pages 3 to 15. Note that the text covers material we won't cover in class. If we don't cover material in class, you aren't responsible for it. That said, you may find it interesting to learn and know about anyway.

Week 01

Tue, Aug 26, 2025

Course introduction

- *Read*: MM pp 3-16
- *Slides*: | html |

Thu, Aug 28, 2025

History of neuroscience, levels of analysis, methods

- *Read*: MM pp 3-16
- *Watch*: National Geographic (2014), NeuroBriefs (2011), Eames Office (2010)
- *Slides*: | html |

Week 02

Tue, Sep 2, 2025

Methods II

- *Read*: MM pp 44-50
- *Watch*: National Institute on Biomedical Imaging and Bioengineering (n.d.), Video (2010), Understanding Animal Research (2009)
- *Slides*: | html |

Thu, Sep 4, 2025

Neuroanatomy I

- *Read*: MM pp 27-44
- Extra credit assignment due: Canvas dropbox
- *Slides*: | html |

Week 03

Tue, Sep 9, 2025

Neuroanatomy II

- *Read*: MM pp 16-27
- *Slides*: | html |

Thu, Sep 11, 2025

Neuroanatomy III; Quiz 1

- *Slides*: | html |

Week 04

Tue, Sep 16, 2025

Cells of the nervous system; Neurophysiology I

- *Read*: MM pp 20-27
- *Slides*: | html |

Thu, Sep 18, 2025

Neurophysiology II

- *Read*: MM pp 58-74
- *Slides*: | html |

Week 05

Tue, Sep 23, 2025

Neurophysiology III; Exam 1 Review

- *Slides*: | html |

Thu, Sep 25, 2025

Exam 1

Week 06

Tue, Sep 30, 2025

Neurochemistry I

- *Read*: MM pp 86-100
- *Slides*: | html |

Thu, Oct 2, 2025

No Class

Week 07

Tue, Oct 7, 2025

Neurochemistry II

- *Read*: MM pp 102-106, 122-123
- *Slides*: | html |

Thu, Oct 9, 2025

Hormones

- *Read*: MM pp 248-266
- *Slides*: | html |

Week 08

Tue, Oct 14, 2025

Quiz 2; Evolution

- *Slides*: | html |
- *Watch*: Scale: (2023)

Thu, Oct 16, 2025

Development

- *Read*: MM pp 124-134, 145
- *Slides*: | html |

Week 09

Tue, Oct 21, 2025

Exam 2 Review

- *Slides*: | html |

Thu, Oct 23, 2025

Exam 2

Week 10

Tue, Oct 28, 2025

Psychopathology I

- *Read*: MM pp 106-108, 412-405
- *Slides*: | html |

Thu, Oct 30, 2025

Psychopathology II

- *Read*: MM pp 106-108, 386-394
- *Slides*: | html |

Week 11

Tue, Nov 4, 2025

Election Day • No Class

Thu, Nov 6, 2025

Emotion I

- *Read*: MM pp 356-369
- *Slides*: | html |

Week 12

Tue, Nov 11, 2025

Emotion II; Quiz 3

- *Read*: MM pp 375-383
- *Slides*: | html |

Thu, Nov 13, 2025

Sensory Systems

- *Read*: MM pp 148-157
- *Slides*: | html |

Week 13

Tue, Nov 18, 2025

Somatosensation

- *Slides*: | html |

Thu, Nov 20, 2025

Action I; Exam 3 Review

- *Read*: MM pp 148-157
- *Slides*: | html |

Thanksgiving

NO CLASS

Week 14

Tue, Dec 2, 2025

~~Exam 3~~ (rescheduled for Thursday)

Thu, Dec 4, 2025

Exam 3

> **Note**
>
> Slides and material for the following topic are provide here for students' reference.
> *Action II*
>
> - *Slides*: | html |

Week 15

Tue, Dec 9, 2025

Memory; Quiz 4

- *Slides*: | html |

Fri, Dec 12, 2025

Frontiers in neuroscience; Exam 4 review; The Cerebral Sympony

- *Slides*: | html |

Finals

Tue, Dec 16, 2025

Exam 4 (Final), 4:40-6:30 pm in 114 Steidle

References

A GPS for your mind: Penn State Health's Brainlab surgical system helps teen recover from hemorrhage. (2023, October 30). Retrieved August 18, 2025, from https://pennstatehealthnews.org/2023/10/a-gps-for-your-mind-penn-state-healths-brainlab-surgical-system-helps-teen-recover-from-hemorrhage/

Eames Office. (2010). *Powers of Ten™ (1977)*. YouTube. Retrieved from https://www.youtube.com/watch?v=0fKBhvDjuy0

National Geographic. (2014, January). Beautiful 3-D brain scans show every synapse | national geographic. YouTube. Retrieved from https://www.youtube.com/watch?v=nvXuq9jRWKE

National Institute on Biomedical Imaging and Bioengineering. (n.d.). *How does an MRI scan work?* YouTube. Retrieved from https://www.youtube.com/embed/1CGzk-nV06g

NeuroBriefs. (2011). *The ascent: A brief history of the brain*. YouTube. Retrieved from https://www.youtube.com/watch?v=S0HKupSZq8k

Scale:, T. (2023). *To scale: TIME*. YouTube. Retrieved from https://www.youtube.com/watch?v=nOVvEbH2GC0

Understanding Animal Research. (2009). *Parkinson's disease*. YouTube. Retrieved from https://www.youtube.com/watch?v=KDjWdtDyz5I

Video, N. (2010). *Method of the year 2010: Optogenetics - by nature video*. YouTube. Retrieved from https://www.youtube.com/watch?v=I64X7vHSHOE&list=PLRstm0n591-rBbOeC0SJEy20-NwXpLo4G