INTRO. TO NEURAL DATA ANALYSIS

NEUR 265: Spring, 2024

MEETINGS

MW: 1:15-2:30
Oechsle 107

INSTRUCTOR
DR. HENRY HALLOCK

Assistant Professor
Neuroscience

Office: Oechsle 303

HOW TO REACH ME

E-mail:
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Office Hours:
MW: 10:00-11:00
Schedule Meeting:
calendly.com/hallockh/

COURSE DESCRIPTION

How do neuroscientists make sense of the brain? How does the brain encode cognition and behavior? To answer these questions, we must use currently available tools to collect data from the brain. Once we have these data – what are the next steps? In this course, we will learn how to analyze real examples of neural data with the Python programming language.

LEARNING OUTCOMES

01 **Effectively write** code to perform basic analyses on several types of data

02 **Create** clean and intelligible graphs of your input and output data

03 **Draw** conclusions about brain-behavior relationships based on your analyses

04 **Organize** your data and code in a reproducible manner

COURSE RESOURCES

colab

We will be using Google Colaboratory (colab.research.google.com) to run our python code

All course materials, including in-class Colab notebooks, will be located in our main GitHub repo (github.com/hallockh/neur_265)

ASSESSMENTS

Weekly Coding Assignments: 135 points total
Final Project: 50 points
Intro Essay/Reflection Essay: 20 points

Total possible points: 205

WHY TAKE THIS COURSE?

If you are considering a career in neuroscience, psychology, or biology (or many other fields!), working with data is extremely common. If you are thinking about going to graduate school in any of these fields, working with data is a requirement. Doing science is a job, and coding has become a major tool that scientists use to do their job effectively.

STRATEGIES FOR SUCCESS

Ask for help

Come to office hours

Talk to group members

Practice

Do in-class assignments

Believe in yourself