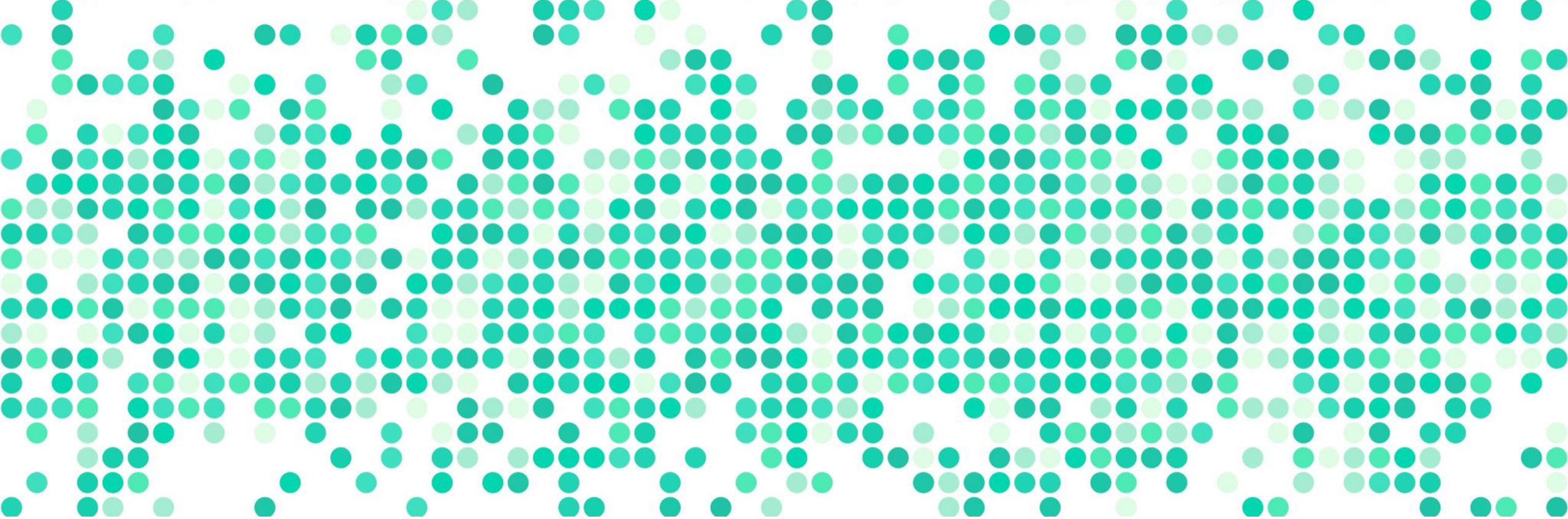
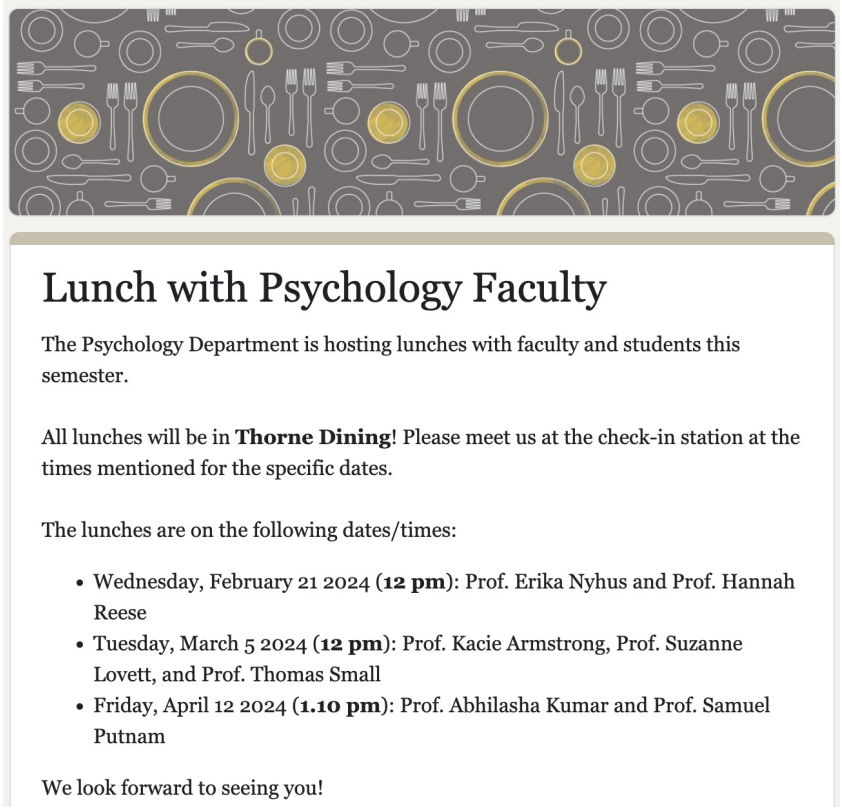


# DATA ANALYSIS

Week 12: Midterm 2 review!

# lunch with Psychology faculty!



## Lunch with Psychology Faculty

The Psychology Department is hosting lunches with faculty and students this semester.

All lunches will be in **Thorne Dining**! Please meet us at the check-in station at the times mentioned for the specific dates.

The lunches are on the following dates/times:

- Wednesday, February 21 2024 (**12 pm**): Prof. Erika Nyhus and Prof. Hannah Reese
- Tuesday, March 5 2024 (**12 pm**): Prof. Kacie Armstrong, Prof. Suzanne Lovett, and Prof. Thomas Small
- Friday, April 12 2024 (**1.10 pm**): Prof. Abhilasha Kumar and Prof. Samuel Putnam

We look forward to seeing you!

https://forms.gle/BGDXsRWFB6xNuoyE7

# participate in a lab study!

https://tinyurl.com/2710PSYC2024

# logistics: office hours

- Prof. Kumar
  - Wednesday (today): 2-5 pm, Kanbar 217
  - Thursday (tomorrow): 2-4 pm, Zoom (link on Canvas)
  - also available to meet separately (email me!)

# midterm 2 format

- in-class conceptual (on Canvas): 40% of first midterm grade (6 out of 15 points)
  - multiple choice, matching, short answer (quiz-like)
  - test table will be available
  - ONE extra help sheet allowed
  - closed book
  - very similar to practice quiz on Canvas!
- take-home computational: 60% of first midterm grade (9 out of 15 points)
  - short-answer + data analysis (problem set and worksheet like)
  - very similar to practice exam on Canvas!
  - submissions will involve: (1) PDF of solution sheet + (2) downloaded worksheet
  - open book but NOT open person

# midterm 2 policies

- you can directly use the following formulas for this midterm
  - AVERAGE
  - SQRT
  - CORREL
  - STDEV.S, STDEV.P, etc.
- format will be **VERY SIMILAR** to the review materials (quiz + computational)

# canvas walkthrough

# class participation (5 points)

- in-class + office hours (2.5 points)
- discussion board OR question contribution (2.5 points)
  - option 1: post on discussion board 5 times
    - posting at least 5 times get you the full class participation points
    - most active students get extra credit
  - option 2: submit at least 10 multiple-choice/true-false questions
    - these questions will be made available to the class for practice (after review)
    - (at least) 2 of these questions will be on the final
    - if your question is chosen to be on the final, you will get extra credit :)

# anonymous questions

- https://forms.gle/mQraw4bokZvDtVNE9

# review: key concepts

- sampling distributions
- standard errors
- F and t-tests
- type I and type II error

# review: key concepts

- for each concept, answer the following questions:
- what is it? how would I explain this concept without any math?
- do I have a computational/mathematical definition?
- what factors influence it?
- how is it similar to other terms/ideas and how is it different?

# matching question

Twenty boys watched 20 hours of violent television. The number of times each child was aggressive was recorded for 30 minutes. Is aggression after watching the violent television significantly different from the population average of 0 acts of aggression (sd = 1)?

# matching question

The Director of Alumni wants to estimate the amount of money he can anticipate each alumni donating given the number of years since they've each graduated.

# matching question

Which is the best way to graphically display the marital status of 50 adults?

# matching question

Using matched random assignment (based on SAT scores), different groups of students studied for a multiple-choice exam using only their class notes, only their textbook, or both. The professor recorded the number of errors on the test. Were errors significantly affected by study method?

# matching question

> The Fall-semester GPAs of 15 sophomores and 15 first-years were compared to see if one group performed better than another. Does class year significantly affect GPA?

# matching question

Census data from the 1930's reveals that women, on average, had their first child at 18 years of age. Twenty randomly selected 50-year-old mothers reported having their first child at 25 (standard deviation = 1.5). Do women wait significantly longer before having children compared to the 1930's?