

# PSYCH 260

## Exam 2 Review

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# Methods

- Structural vs. functional methods

# Neuroanatomy

- Autonomic (ANS) vs. somatic divisions of the Peripheral Nervous System
  - Sympathetic vs. parasympathetic branches of ANS

# Cellular neuroscience

- Glial types and functions
- Anatomy of neurons
  - Gap junctions

# Neurophysiology

- [Resting potential – what & why](#) and [this](#)
  - $[K^+]$  story (where concentrated, direction of flow)
  - $[Na^+]$  story (where concentrated, direction of flow)
  - [Summary](#)
- [Action potential and propagation – how & why](#)
- [Steps leading to neurotransmitter release](#) and [this summary figure](#)

# Neurochemistry

- Neurotransmitter types
  - Amino acids, especially glutamate and GABA
  - Acetylcholine
  - Monoamines

# Neurochemistry

- Anatomy (where released) and function
- Receptor types: ionotropic vs. metabotropic
- Inactivation mechanisms & rationale
- EPSPs & IPSPs

# Hormones

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- Behaviors under hormonal influence
  - HPA axis, SAM response/axis
- Anatomy: Where released
- Direct (posterior pituitary) vs. indirect (anterior) release
- Responses to threat/challenge
- Milk letdown reflex



# Brain evolution

- When did complex animals (and nervous systems) emerge?
- Comparisons among vertebrate brains
- Patterns of brain/body mass across vertebrates
- Human brains vs. other animal brains