Final Exam

• Tues Dec 4, 3:30 – 6:00 pm, SWNG 121

• Read the textbook, other articles, and lecture notes
  – see syllabus for textbook pages
  – WILL include lab material
  – WILL be cumulative, but strong emphasis on last 1/3 of class

• Critical thinking
  • Analyzing experiments, interpreting data

• 35% of grade
Final Exam

• Use a pencil for Scantron

• Spread out. Do not sit next to each other.

• Keep your eyes on your own exam.

• Put away everything except a pencil. No papers, no pencil cases, no headphones etc. Bring photo ID.

• ****Stop writing when the time is done. If you do not, points will be deducted, in fairness to the other students.*****
Final Exam

• Write your name (clearly) on the 1st page of exam and Scantron!
  • Last (Family) name
  • First (Given) name
  • Student ID

• Use the correct side of the Scantron!

• Multiple choice: 80 questions, 2 pts each
• Short answer: 2 questions, 20 points each
  • Experimental design, interpreting data
Final Exam

• **Use your time wisely.**

• Read the question. Make sure you understand the question before you answer.
Academic misconduct

• Will be treated very seriously.

• **This includes writing after the exam is over**
Make-up exams

• Only for validated medical reasons
• Must contact me and submit documentation ASAP

• Make-ups will be **oral exams** in presence of professor & TA
Regrading exams

• Written request for regrades. Need to explain why you think the exam should be regraded.

• I reserve the right to regrade the entire exam (not just a particular question), which means that your grade could go down upon regrading.
A study tested the effects of an aromatase inhibitor (FAD) on aggressive behavior in male song sparrows. Which of the following conclusions best describes these results?

a. Progesterone increases male aggressive behavior
b. FAD decreases some aggressive behaviors but increases others
c. FAD inhibits enzymes other than aromatase
d. Estrogens increase male aggressive behavior
e. The aromatase enzyme catalyzes the conversion of testosterone to estradiol in the brain.
I’ll state a hypothesis, describe a study to test the hypothesis, and give the results of that study.

- Main conclusions – in relation to the hypothesis (4 pts)

- Identify & explain one strength of the experimental design (5 pts)

- Identify & explain one weakness/limitation of the experimental design (5 pts)
  - with respect to testing the hypothesis

- Describe one follow-up experiment to further test this hypothesis. A study not described in lecture or in textbook. Include control groups and predictions. Use your creativity! (6 pts)
Short answer question

• DO NOT list multiple strengths and weaknesses!

• State one strength and one weakness – and explain each well.

  • “One strength is…”

  • “One weakness is…”

• Write legibly and in full sentences.
Researchers tested the hypothesis that oxytocin acts on the nucleus accumbens to promote pair bonding behavior in female prairie voles. Researchers tested the effects of a serotonin receptor (5HT1a receptor) agonist (buspirone) on partner preference formation in prairie voles. Subcutaneous administration of buspirone was shown previously in male rats to cause a rapid and transient surge in circulating oxytocin levels in the blood. Buspirone in saline (0, 8 or 30 mg/kg body mass) was administered subcutaneously to adult female prairie voles, immediately prior to a 6 hour cohabitation with an adult male prairie vole (social learning phase). These are not optimal social learning conditions, because 6 hours is a relatively short amount of time for partner preference formation. Immediately after, the subjects were tested in a 3-hour partner preference test. The male partner was tethered in one chamber of a 3-chambered test arena, a novel male was tethered in the opposite chamber, and the middle chamber was left empty. The experimental female was allowed to freely wander in the test arena, and the time she spent huddling (close contact) was measured. (N=10 per group)

a. What are the main conclusions from this experiment, in relation to the hypothesis? Explain. (4 pts)

b. What is one strength of the experimental design? Explain. (5 pts)

c. What is one weakness/limitation of the experimental design? Explain. (5 pts)

d. Describe one follow-up experiment to further test this hypothesis in this species (a study not described in lecture or in textbook). Include control groups and predictions. Use your creativity! (6 pts)