TIP: The "Questions from the Public" are the same as this list of exam questions.
All students may earn participation points by commenting on the BLOG questions for each unit, during Part 1. On campus students may also earn points by in-class chats about these questions.

PART 1. QUESTIONS FROM THE PUBLIC

Notes		List of potential questions on Final Exam
1.1	Q1.1	What are the objectives of this course?
1.2	Q1.2.	What is the meaning of Folk Psychology from an anthropomorphic perspective on behavior (give example)?
	Q1.3.	Who were the intellectual forefathers of ethology, and what did each scientist study?
1.3	Q1.4.	What is the meaning of **Proximate Causation** (PC) from an ethologist's perspective? (TIP: give example)
	Q1.5.	What is the meaning of **Proximate Development** (PD) from an ethologist's perspective? (TIP: give example)
	Q1.6.	What is the meaning of **Ultimate Evolution** (UE) from an ethologist's perspective? (TIP: give example)
	Q1.7.	What is the meaning of **Ultimate Function** (UF) from an ethologist's perspective? (TIP: give example)
2.1	Q2.1	What is learned intelligence and why have fish, reptiles, birds and mammals diverged during evolution of this trait (TIP: compare brain anatomy)?
	Q2.2	From a proximate perspective, what are the steps used by trainers to assist animals in flexible learning of stimulus/response contingencies (give an example)?
2.2	Q2.3	What is adaptation by social transmission (give example), and why does it function on an intermediate time scale (compared to learning and instinct)?
	Q2.4	From a development perspective, how does age influence social transmission of problem-solving skills (give an example)?
2.3	Q2.5	For an example of an instinctive behavior (your choice) what is the cause and function?
	Q2.6	What are the similarities and differences between artificial selection and natural selection of heritable instinctive behaviors (give examples)?
3.1	Q3.1	Compare Folk Psychology and Scientific perspectives on behavioral adaptations to stress?
	Q3.2	For species that cannot migrate, what is an example of a behavioral adaptation with the function of surviving extreme climatic conditions?
3.2	Q3.3	What is the CAUSE of migration for a species of your choice?
	Q3.4	What is the FUNCTION of migration for a species of your choice?
3.3	Q3.5	How does migratory behavior DEVELOP with age in individuals of a species of your choice?
	Q3.6	Why has migratory behavior EVOLVED in the past history of a species of your choice?

QUESTIONS FROM THE PUBLIC (BLOG to prepare for Final Exam)

Pres.	Question
4.1	Q4.1 What is the concept of communication in ethology? Q4.2 Compare communication in humans and other animals (similarities & differences)?
4.2	Q4.3 What is an example of the **proximate cause** of a FLEXIBLE communication sign? Q4.4 What is an example of a **developmental change** in a FLEXIBLE communication sign?
4.3	Q4.5 What is an example of **evolutionary change** in a FIXED communication signal? Q4.6 What is an example of **the ultimate function** of a FIXED communication signal?
5.1	Q5.1 In a species of your choice, how would you test an hypothesis about the FUNCTION of intense conflict between strangers? Q5.2 What is the CAUSE of intense combat that may escalate to injury, in a species of your choice (TIP: refer to stimulus, response & internal state)?
5.2	Q5.3 For a species of your choice, describe HOW conflict between rivals may de-escalate, reducing injurious combat? Q5.4 What are three hypotheses about WHY display signals have evolved with a function of reducing injurious conflict between rivals?
5.3	Q5.5 Explain an example of HOW animals assess asymmetry or symmetry in fighting abilities? Q5.6 In a species of your choice, WHY would the fitness of “assessor genotypes” have been higher than “non-assessors”?
6.1	Q6.1 How do hierarchical relations within stable groups differ from contests of strength between groups? Q6.2 What are 3 alternative hypotheses about the STRUCTURE of social hierarchies within animal groups?
6.2	Q6.3 What are 3 alternative hypotheses about the FUNCTION of social hierarchies within animal groups? Q6.4 For a species of your choice, what is the FUNCTION of the social hierarchy within the group?
6.3	Q6.5 For a species of your choice, what CAUSES the social hierarchy within the group? Q6.6 How would you apply your understanding of social conflict to managing a social species of your choice?

QUESTIONS FROM THE PUBLIC (BLOG to prepare for Final Exam)

Pres.	Question
7.1	Q7.1 For a species with alloparents, how does the development of parental behavior change with age? (TIP: describe the progression from alloparenting to parenting) Q7.2 What is the function of alloparents in a species of your choice?
7.2	Q7.3 In a species of your choice, how does care-solicitation change with age? Q7.4 In a species of your choice, how does parental care change with the age of the infant?
7.3	Q7.5 In a bird species of your choice, how do the father and mother care for the young? Q7.6 In a mammal species of your choice, how do the father and mother care for the young?
8.1	Q8.1 In a species of your choice, how is internal fertilization accomplished? Q8.2 What are alternative hypotheses about the function of internal fertilization?
8.2	Q8.3 For external fertilization, how does it occur in a species of your choice? Q8.4 What is the function of external fertilization? (TIP: refer to the size, number and synchrony of gamete production related to risk of mortality)
8.3	Q8.5 For an asexual species of your choice, how does reproduction occur? Q8.6 What is the phylogenetic history of asexual reproduction?
9.1	Q9.1 Within a taxonomic group of your choice, how have species-specific signals diverged? Q9.2 For two closely related species, what is an hypothesis about why species specific signals diverged?
9.2	Q9.3 What are 3 alternative hypotheses about the stimuli influencing female choice of mates? Q9.4 For a species of your choice, how would you test an hypothesis about mate choice?
9.3	Q9.5 What effect does testosterone have on secondary sexual traits in males? Q9.6 What would be the costs of elaborate displays in males? (TIP: UF answer in terms like “those that…)

QUESTIONS FROM THE PUBLIC (BLOG to prepare for Final Exam)

Pres.	Question
10.1	Q10.1 For a group-hunting species of your choice, how are individuals coordinated in capturing prey? Q10.2 What are the costs and benefits of foraging in a group, for a species of your choice?
10.2	Q10.3 For a solitary-hunter species of your choice, describe search, chase and capture stages of the hunt? Q10.4 What is an hypothesis about the evolutionary history of hunting behavior in a taxonomic group of your choice? (TIP: compare solitary hunters with group hunters)
10.3	Q10.5 Why has co-evolution resulted in a "predator-prey arms race"? Q10.6 What are examples of anti-predator behaviors with the following functions: avoid detection (camouflage), avoid capture (flee), escape capture (fight back)?
11.1	Q11.1 How does a species with a GENERALIST foraging strategy decide what to eat? (PC TIP: choose a species and be specific about the availability & content of food items) Q11.2 What is the function of a GENERALIST foraging strategy, for a species of your choice? (UF TIP: discuss the predictability of foods for this species)
11.2	Q11.3 What are examples of divergent SPECIALIST foraging strategies for feeding from plants? (UE TIP: refer to species that use nectar, pollen, fruits, seeds, leaves) Q11.4 What is the function of a SPECIALIST foraging strategy, for a species of your choice? (UF TIP: explain adaptations that overcome plant defenses)
11.3	Q11.5 How do animals store nutrients? (PC TIP: pick a species of your choice and explain the type of nutrient and where it is stored inside or outside the body) Q11.6 What is the function of behavioral adaptations to store nutrients? (UF TIP: pick a species and explain what is predictable/unpredictable in its environment re. food storage)
12.1	Q12.1 What is an example of an adaptation using body secretions as building material? (TIP: pick a species and describe the behavior) Q12.2 What is an example of an adaptive behavior that uses objects acquired from the environment as building material? (TIP: pick a species and describe the behavior)
12.2	Q12.3 For a social species of your choice, explain how you would test what aspects of nesting behavior (i.e. site selection, nest building) are shaped by social learning? Q12.4 For a colonial species of your choice, explain what aspects of a particular behavior are instinctive and which aspects are shaped by environmental conditions (learned)?
12.3	Q12.5 Explain an hypothesis about the phylogenetic history of several species that build homes? (TIP: pick at least two species in the same taxonomic group, explain ancestral and derived forms). Q12.6 For two species that use the same structure, why have they coevolved?