

# PSYCHOLOGY 3770 (A)

## PRIMATE SOCIAL EVOLUTION AND COGNITION

*Spring 2012*



### Course description

The discipline of psychology owes its existence to the fact that humans are cognitively both complex and opaque. This suggests that an improved understanding of ourselves will not be gained by any single route and will require, instead, the integration of a variety of approaches. One such approach is to ask how human capacities have emerged or come to be. The attempt to answer this question underpins both developmental and evolutionary approaches to human psychology. In this course, we pick up on the latter to see what understanding can be gained from asking about the selection pressures that have imposed themselves at various points in our evolutionary past. To do so, we will begin by going back to Darwin, both to refresh our understanding of natural selection and its implications and to understand how to undertake such an 'archeology of the mind'. At the heart of this is the question: What has it meant to have had a primate heritage? This is the central issue that we will consider. Consequently, we go on to describe the characteristics of primates and to review what is known of human evolution. We then describe the evolution of primate brains and assess the relationship between these brains and cognition. From here we address the reasons for brain expansion in the primates and then conclude by asking what it means to be a human primate.

**Instructor:** *Peter Henzi*

**Room:** C878

**E-mail:** peter.henzi@uleth.ca

**Lecture Times:** Monday, Wednesday, Friday -11:00-11:50

**Venue:** PE264

**Textbook:** There is NO textbook for the course. Where I think that you should have a more formal engagement with the primary literature, I will place appropriate readings on WebCT. I will also provide PDF notes on the lecture material as we go along.

**Course Evaluation:** The default evaluation structure is for there to be TWO midterm tests (25% each) and ONE final exam (50%) based on material from lectures and the course readings. The final exam will be **cumulative**. We will set dates for the two midterms in class.

**Grading:** Final letter grades for the course will be determined using the following scheme:

A+	90-100	C+	67-70
A	84-89	C	64-66
A-	81-83	C-	61-63
B+	77-80	D+	57-60
B	74-76	D	50-56
B-	71-73	F	<50

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## **SYLLABUS**

### **Topic 1**

Focus of a Darwinian psychology: Darwin's Conjecture.

### **Topic 2**

Evolution, natural selection and behaviour.

### **Topic 3**

Speciation and the comparative method

### **Topic 4**

Primate evolution and characteristics

Hominin evolution and characteristics

### **Topic 5**

Brain evolution and structure in primates

Brains and cognition – what brains do; costs and benefits

### **Topic 6**

Selection for primate brains: *Ecology*

Selection for primate brains: *Tools*

### **Topic 7**

Selection for primate brains: *Social life*

Primate sociality 1: Causes and consequences

Primate sociality 2: Tactical solutions to local problems

Hominin sociality and cognitive extension

### **Topic 8**

Becoming human: language, culture and thought