

# PSYCHOLOGY 3770

## PRIMATE LIVES AND COGNITION

Fall 2015



### 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 for us 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

**Venue:** C640 UHall

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**Teaching Assistant:** Christina Nord ([christina.nord@uleth.ca](mailto:christina.nord@uleth.ca))

**Lecture Times:** Tuesdays & Thursdays 13:40pm - 14:55pm

**Textbook:** Your textbook, such as it is, has been written by me but you will receive it - free - in appropriate PDF installments on Moodle. There is method in this madness: it allows me to revise the text to take account of new material. Where I think that you should have a more formal engagement with the primary literature, I will place appropriate readings on WebCT.

**Course Evaluation:** The default evaluation structure is for there to be TWO midterm tests (25% each), 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. There is also a voluntary practical exercise.

### \*Supplementary Practical Exercise

Our understanding and appreciation of the material with which we are confronted is significantly enhanced once we move from being passive recipients to become active participants in the process of knowledge creation. As there are generally too few opportunities for this at the university, I am offering you - under close supervision - an opportunity to analyse relevant data and write it up as a scientific report. My hope is that this will enhance your sense of how science is done. To encourage you to do so, you will be eligible for a bonus mark of **up to 5%** of the course total, PROVIDED THAT YOU OBTAIN A PASSING GRADE for the assignment. Note that (1), this is NOT a required component of the course (i.e. you do NOT have to do it) and (2), the data with which you work will not be used for any other purpose.

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

A+	90-100	C+	68-69
A	83-89	C	63-67
A-	80-82	C-	60-62
B+	78-79	D+	57-59
B	73-77	D	50-56
B-	70-72	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

Phylogeny 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; Tools*

### Topic 7

Selection for primate brains: *Social life*  
Primate sociality 1: Causes and consequences  
Primate sociality 2: Tactical solutions to local problems

### Topic 8

Hominin sociality and cognitive extension  
Becoming human: language, culture and thought