Philosophy of Biology
01:730:429
Spring, 2014

Tuesday, Friday 9:50 – 11:10 am
Scott Hall (CAC), Rm 105

Instructor: Ronald J. Planer
Email: planerr@eden.rutgers.edu
Office hours/location: TBD

Absence Policy:
Students are expected to attend all classes; if you expect to miss a class, please use the University absence reporting website https://sims.rutgers.edu/ssra/ to indicate the date and reason for your absence. An email is automatically sent to me.

Please note: My policy for missed exams is that a makeup will be offered only in the case of (documentable) illness, a family/personal emergency or crisis, and other extreme circumstances.

Current Academic Integrity Policy:

Violations include: cheating, fabrication, plagiarism, denying others access to information or material, and facilitating violations of academic integrity.

Readings:
Dawkins vs. Gould: Survival of the Fittest (K. Sterelny) [new edition]
Genetics and Philosophy: An Introduction (P. Griffiths, K. Stotz)
Paleontology: A Philosophical Introduction (D. Turner)
The Philosophy of Human Evolution (M. Ruse)
Lone Survivors: How We came to Be the Only Humans on Earth (C. Stringer)

Course Overview:
We will begin the semester by examining two rival frameworks for theorizing about and understanding evolution by natural selection (one most closely associated with the work of Richard Dawkins, the other with the work of Stephen Jay Gould). After that, we will turn to a critical investigation of some of the conceptual and empirical underpinnings of these two frameworks (there will be a section of the course dealing with the nature of genes and gene action, and then a section dealing with issues in paleontology). In the remainder of the course, we will switch gears and focus on the topic of human evolution. We will first examine a number of philosophical issues in human evolution, and then read some recent empirical work on the topic (specifically, a book written by a leading evolutionary anthropologist). The latter will provide us with an
opportunity to apply some of the philosophical tools and insights developed earlier in the course to an area of cutting-edge empirical research in evolutionary biology.

**Assessment:**
Your grade in the course will be determined on the basis of:
- a midterm exam (worth 40%); and
- a final essay (worth 60%)

Class participation can positively influence your final grade, although not participating will not count against your grade.

I accept late papers, but they are graded down a 1/3 a letter grade per every day past the due date. I will not accept papers that are over a week late (barring extreme and documentable extenuating circumstances).

Full disability policies and procedures are at [http://disabilityservices.rutgers.edu/](http://disabilityservices.rutgers.edu/)

Students with disabilities requesting accommodations must follow the procedures outlined at [http://disabilityservices.rutgers.edu/request.html](http://disabilityservices.rutgers.edu/request.html)

**Tentative Schedule:**

**Week 1: Introduction**
Jan 21: Course overview
Jan 24: Background on Evolution (reading TBA)

**Week 2: Foundations of Evolutionary Theory**
Jan 28: Sterelny Ch. 1-3
Jan 31: Sterelny Ch. 3-6

**Week 3: Foundations of Evolutionary Theory**
Feb 4: Sterelny Ch. 7-9
Feb 7: Sterelny Ch. 10-13

**Week 4: Genes**
Feb 11: Griffiths & Stotz Ch. 1,2
Feb 14: Griffiths & Stotz Ch. 3,4

**Week 5: Genes**
Feb 18: Griffiths & Stotz Ch. 5,6
Feb 21: Griffiths & Stotz Ch. 7,8

**Week 6: Genes**
Feb 25: Griffiths & Stotz Ch. 9, TBA
Feb 28: TBA (something on evo devo and genetic info)
Week 7: *Paleontology*
Mar 4: Turner Ch. 1,2
Mar 7: Turner Ch. 3,4

Week 8: *Paleontology*
Mar 11: Turner Ch. 5,6
Mar 14: Turner Ch. 7,8

Week 9: *Spring Break*
Mar 18: No class
Mar 21: No class

Week 10: *Exam Week*
Mar 25: Review
Mar 28: Midterm exam

Week 11: *Paleontology/Human Evolution*
Apr 1: Turner, 9,10; Ruse Ch. 1
Apr 4: Ruse Ch. 2

Week 12: *Human Evolution*
Apr 8: Ruse Ch. 3,4
Apr 11: Ruse Ch. 5,6

Week 13: *Human Evolution*
Apr 15: Ruse Ch. 7,8
Apr 18: Stringer Ch. 1-3

Week 14: *Human Evolution*
Apr 22: Stringer Ch. 4-7
Apr 25: Stringer Ch. 8,9

Week 15: *Human Evolution*
Apr 29: Paul Seabright Ch. 16 (“States and Empires” [Humans in the Holocene epoch])
May 2: Summary

The date of the midterm is only tentative; the final date will be announced in class. The final paper will be due on the day our final exam is scheduled for. That date can be found here:

[http://finalexams.rutgers.edu/](http://finalexams.rutgers.edu/)

Please feel free to contact me via email with any further questions you might have.