

Philosophy 3334: Philosophy of Biology

SUMMER 2021

Instructor Info

Instructor: Joel Velasco



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My Office: 265G Eng/Phil

Dept main office: 251 Eng/Phil

Office Hours: Mon, Tue, Thur
1:00-2:00 or by appointment



Course Info

Class meets Mon-Fri 2:00-3:50
in MCOM 166

Course website:

[http://joelvelasco.net/
teaching/3334](http://joelvelasco.net/teaching/3334)

Course Description

This course provides an introduction to the philosophy of biology in general and to debates about human nature in particular.



This is a **reading-intensive, discussion-based** course. Students are expected to come to class having read the assigned material and ready to discuss it. You are not expected to understand everything in the readings, but you are expected to raise questions about what you don't understand, engage in debate and dialog about the material, and raise objections to claims that seem questionable.



Rather than sit passively, I want you to **THINK FOR YOURSELF** and **ACTIVELY ENGAGE** with the readings, other students, and the instructor. **You cannot do well in this course without doing the assigned readings and coming to class.** Although there are no prerequisites, it is an advantage to have *some* background in philosophy and theoretical biology.

The goal of this course is to philosophically examine evolutionary theory and, in particular, to think carefully about how evolution should affect our understanding of ourselves. We will start by reading Richard Dawkins' *The Selfish Gene* which paints a particular picture of one way of understanding basic evolutionary concepts like selection, fitness, and adaptation. We will then spend the rest of the class thinking about issues that are particularly salient in the case of humans: the genetics and heritability of human behavior, sex and gender, and race. In each case, we will ask how (and even if) biology is relevant to understanding the issues properly.

Expected Learning Outcomes

1) The student will understand how evolution by natural selection works and will be able to demonstrate how it applies in particular cases.

2) The student will understand how biologists think about and calculate the heritability of traits and how that might be related to questions about nature/nurture debates regarding human behavior.

3) The student will understand some of the major views about the nature of human races and be able to critically evaluate these views.

4) The student will understand some of the major views about the nature of sex and gender in humans and be able to critically evaluate these views.

Grades

The grades will be based on reading questions, homeworks, and take-home essays.

- Reading questions (30%): For every single class (after the first one) I will have prepared reading questions ahead of time usually consisting of a few questions where you will have to do the reading in order to understand and answer the questions and you will have to put some thought and reflection into answering. Your total score will max out at 30 points (they are worth 2 points each) so if you are doing well, you may be able to skip some. You must be present and on time in class on a day you get credit for a reading assignment.
- Take-home assignments (70%): We will have a total of five take-home assignments due throughout the semester. These will be a combination of homework problems and short essays.

Rough Grading Scale:

98-100% ⇒ A+	92-97% ⇒ A	90-91% ⇒ A-
88-89% ⇒ B+	82-87% ⇒ B	80-81% ⇒ B-
78-79% ⇒ C+	70-77% ⇒ C	65-70% ⇒ C-
50-64% ⇒ D	0-49% ⇒ F	

Late Assignments Policy

In the absence of a documented excuse, late assignments will be docked 20% per day.

Class Participation

Philosophy is a communal enterprise: the ability to make valuable contributions to philosophical discussions can be as important as the ability to write well. Moreover, since the written assignments will force the students to think carefully about very specific topics, participation in class discussion is an important way for students to demonstrate a broader competence with the material than is possible in the papers alone. Students are encouraged to continue class discussions immediately after the class is over, by meeting with me in person some other time, or continuing the discussion over e-mail with me. Of course discussion with each other outside of class is strongly encouraged as well. Students who for any reason have difficulty speaking up in class are especially encouraged to (and must!) pursue these options. It should go without saying that attendance is an absolutely essential component of class participation.

Religious holy days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent for the observance of a religious holy day shall be allowed to take an exam or complete an assignment scheduled for that day within a reasonable time after the absence.

ADA Statement

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

Academic Integrity:

Cheating and plagiarism are, of course, prohibited in this class just as they are in all university classes. These two violations of academic integrity are each defined in the section of the Texas Tech online official publications titled "Academic Integrity." Plagiarism is there described as follows: "Plagiarism' includes, but is not limited to, the appropriation of, buying, receiving as a gift, or obtaining by any means material that is attributable in whole or in part to another source, including words, ideas, illustrations, structure, computer code, other expression and media, and presenting that material as one's own academic work being offered for credit."

<http://www.depts.ttu.edu/studentconduct/academicinteg.php>

You can find excellent explanations of what specifically constitutes plagiarism as opposed to proper citation, and also tutorials on how to avoid plagiarism at the following websites:

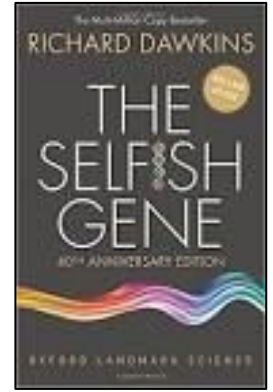
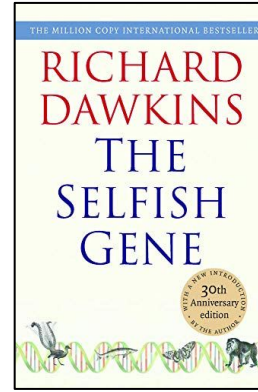
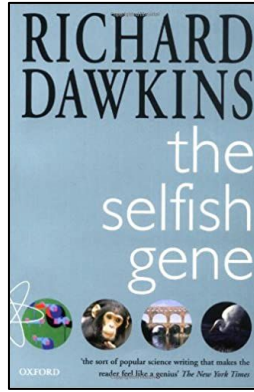
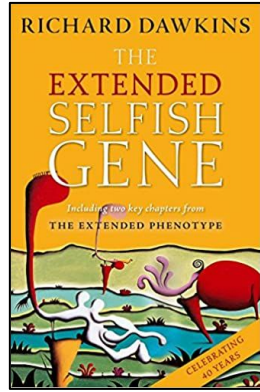
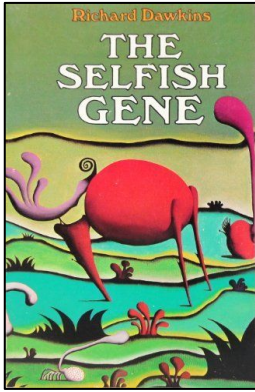
<http://www.dartmouth.edu/~writing/sources/>

<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

Note: If, at any time, you are at all unclear about what counts as plagiarism, or about whether you are properly citing sources in any of your written work, please just come by and ask me about it. You do not want to be confused or careless about this serious matter.

Required book:

The Selfish Gene by Richard Dawkins (Oxford University Press – originally 1976). The 40th anniversary edition is available at the bookstore but the 2nd or 3rd editions are fine too (they need to have the ‘new’ chapters 12 and 13 added in 1989). A pdf is available on blackboard. But you will need to be able to easily access the book in class so a paperback copy is easiest.



An updated course schedule and access to all readings and assignments will be kept on the course website here:

<http://joelvelasco.net/teaching/3334>

Rough Course Schedule

	Reading	Topic	Assignments due
Week 1	Dawkins Ch 1-5	Altruism and Selfishness What is a gene Evolutionary Game Theory	Reading questions
Week 2	Dawkins Ch 6-11	Kin selection Parent-offspring conflict Sexual differences	Reading questions Assignment 1
Week 3	Dawkins Ch 12, 13 Authors TBA including: Wilson, Sober, Kitcher	Evolution of cooperation Cultural evolution Behavioral genetics and heritability	Reading questions Assignment 2
Week 4	Authors TBA including: Fausto-Sterling, Pinker, Spelke	Genes for traits Sex and Gender	Reading questions Assignment 3
Week 5	Authors TBA including: Appiah, Mills, Spencer	Human races	Reading questions Assignments 4, 5