Philosophy 3334:
Philosophy of Biology

Fall 2023

Instructor Info

Instructor: Joel Velasco

E-mail: joel.velasco@ttu.edu

My Office: 251C Eng/Phil

Office Hours: Mon, Tue, Thur
11:00-12:00 or by appointment

Course Info

Class meets Tue,Thu 9:30-10:50 in ENG/PHIL 400

Course website:
http://joelvelasco.net/teaching/3334

Course Description

This course provides an introduction to the philosophy of biology in general and to debates about genes and 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 biological theory and, in particular, to think carefully about how biology 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 and the ethical issues that arise in these contexts such as concerns about privacy and differential treatment as well as eugenics and genetic engineering.

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 (20%): For most weeks 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 20 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 (80%): 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.

Texas Tech Policies

Texas Tech Policies Concerning:

1) Academic Honesty

2) Special Accommodations for Students with Disabilities

3) Student Absences for Observance of Religious Holy Days

4) Accommodations for Pregnant Students can be found here:

https://www.depts.ttu.edu/tlpdc/RequiredSyllabusStatements.php

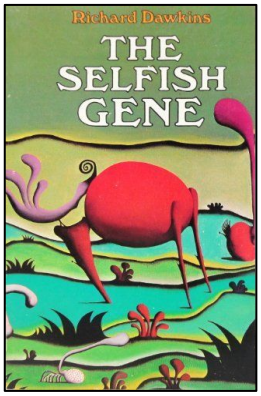
If you have any questions about these policies, please speak with me.

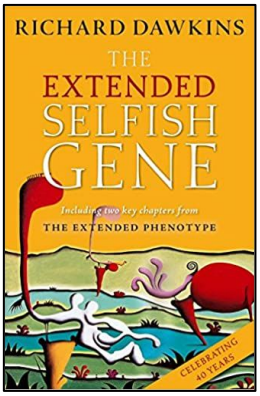
Class Participation

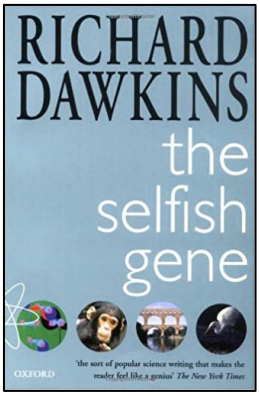
Philosophy is a communal enterprise: the ability to make valuable contributions to philosophical discussions can be as important as the ability to write well. Moreover, since the written assignments will force the students to think carefully about very specific topics, participation in class discussion 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.

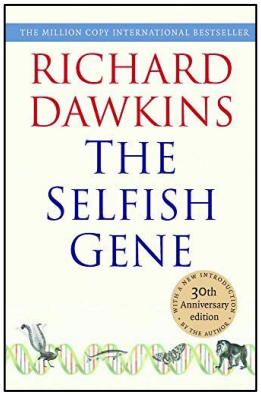
Required books:

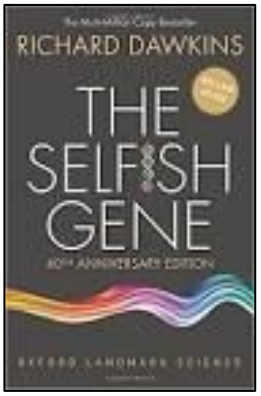
1) *The Selfish Gene* by Richard Dawkins (Oxford University Press – originally 1976). The 40th anniversary edition is available at the bookstore but the 2nd or 3rd editions are fine too (they need to have the 'new' chapters 12 and 13 added in 1989). A pdf is available on blackboard. But you will need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



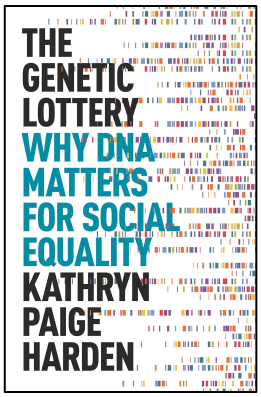








2) *The Genetic Lottery: Why DNA Matters for Social Equality* by Kathryn Paige Harden (Princeton University Press 2021).



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

http://joelvelasco.net/teaching/3334