Philosophy of Biology
Carnegie Mellon University
Spring 2010

Theories come and theories go. The frog remains.
~Jean Rostand~

Instructor:

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office hours: Wednesday 2:00-4:00pm

Required Text	Elliott Sober *Conceptual Issues in Evolutionary Biology* Third Edition. MIT Press
Grading	20 % Class participation 30 % Midterm essay (4-6 pages double spaced), paper due March 4th, topic due February 18th 50 % Final essay (8-10 pages double spaced) due May 7th topic due April 22 These essays should focus in depth on a single issue raised in the class. Avoid the urge to write a survey or personal reflection essay. Instead, tackle a single issue discussed in one or more readings. You could take sides in a debate that we read in class, argue against or in favor of claim made by an author, or develop a novel philosophical position of your own. Your topic must be approved by me at least two weeks before the due date. You may turn in a draft of each essay, but must do so two weeks before the due date
Misconduct and Plagiarism	Plagiarism and other forms of academic misconduct will not be tolerated. If you commit an act of plagiarism you will fail the course and will be reported to central administration. Are you unsure about what is plagiarism? Look at plagiarism.org. All work must be turned in via turnitin.com, which checks for plagiarism. Instructions will be provided as the due date for the first paper approaches.
Late work	If you are having trouble finishing the work on time contact me before the due date and we can discuss arrangements and penalties for late work. Unless serious misfortune befell you, I will not accept late work if you don't approach me before hand.

Topic	**Reading**
Darwin's theory	Darwin *Origin of the Species* Chapter 4 *online*
Modern version	Dobzhansky *Genetics and the Origin of the Species* Chapter 1 – *online*
	Curtis and Barnes - "Evolution", "Genetic basis of evolution" and "Natural selection" *online*
The nature of the theory – Causal view	Sober and Shapiro "Epiphenominalism Do's and Don'ts" *online*
The nature of the theory – Propensity view	Mills and Beatty "The propensity interpretation of fitness" *CIEB*
The nature of the theory – Statistical interpretation	Walsh, Lewens and Ariew "Natural Selection and Random Dirft" *online*
What is drift?	Beatty "Chance and Natural Selection" *online*
Altruism	Okasha "Biological Altruism" (*SEP*) *online*
Levels of selection	Williams "Excerpts from *Adaptation and Natural Selection*" *CIEB*
	Sloan Wilson "Levels of Selection" *CIEB*
Human Sociobiology	Buss "Mate preference mechanisms" *online*
	Tooby and Cosmides "Toward Mapping the Evolved Functional Organization of Mind and Brain" *CIEB*
An objection	Vickers and Kitcher "Pop Sociobiology Reborn" *online*
Evolutionary Psychology & Culture	Boyd & Richerson, "Culture, Adaptation, and Innateness" *online*
Cultural Evolution	Fracchia and Lewontin "Does Culture Evolve?" *CIEB*
	Sober, "Models of Cultural Evolution" *CIEB*
Adaptationism	Gould and Lewontin "The Spandrels of San Marco" *CIEB*
	Maynard Smith "Optimization Theory in Evolution" *CIEB*
Making Adaptationism More Precise	Orzack & Sober, "Optimality Models and the Test of Adaptationism" *online*
	Brandon & Rausher, "Testing Adaptationism" *online*
	Orzack & Sober, "How to Formulate..." *online*
Adaptationism as an Assumption	Dennett, "Searching for quality" *online*
Bias in biology	Hrdy "Empathy, Polyandry, and the Myth of the Coy Female" *CIEB*
Species	Hull "A matter of individuality" *CIEB*
	Baum and Donoghue "Choosing Among Alternative 'Phylogenetic' species concepts" *CIEB*
Intelligent design	Behe "The modern intelligent design hypothesis" *online*
Responses	Fitelson, Stephens and Sober " How Not to Detect Design" *online*
	Shanks and Joplin "Redundant complexity" *online*
	Behe "Response to Shanks" *online*