

**University of California, Davis**  
**Department of Philosophy**  
**PHILOSOPHY OF BIOLOGY**  
**PHI 208, Winter 2010**  
**2275 SSH, Thurs 3:10-6 PM**

## Contact Information

**Instructor:** Professor Roberta Millstein

**Office:** 2287 Social Sciences and Humanities

**Office Hours:** Thurs 1-3PM and by appointment

**E-mail:** RLMillstein@UCDavis.edu (*the best way to reach me*)

**Phone:** 530-554-1398 (Skype #)

**Philosophy Dept. Office, my mailbox:** 1240 SocSciHum      **Philosophy Dept. Phone:** 530-752-0703

## Required Text

Jack Wilson, *Biological Individuality: The Identity and Persistence of Living Entities* (on reserve)

Required (and optional) readings available on course website on SmartSite, <https://smartsite.ucdavis.edu/>

## Course Description

This graduate seminar will focus on the topic of *biological individuality*. We will more or less follow order in which this topic has unfolded in the philosophical literature, which is admittedly a bit strange. We will begin with the oxymoronic-sounding thesis that species are individuals. This raises the question, “what is an individual?” and forces us to (re)evaluate other possible candidates for the nature of species, namely classes or sets. After a few weeks of the debate over the nature of species, we will look at biological individuality more broadly, including the more obvious candidate for biological individuality, the organism. We will see that identifying organisms as individuals is not entirely straightforward, either. Finally, we will turn to some applications of the concept of biological individuality: its role in the debate over the units (or “levels”) of selection and its extension to other purported biological wholes such as ecosystems and social insect colonies. (One related topic that we will not be covering is the evolution of individuality, though I will provide the class with some reading suggestions for interested parties).

## Course Requirements

**Your grade will be based on the following:**

**10% - In-class participation**

**10% - Online participation**

**10% - Coordination of seminar(s)**

**70% - Term paper - due by 3 PM on Friday, March 19**

**In-class participation** - You are expected to come to all classes having done the readings and you are expected to participate in class discussions.

**Online participation** - Post to the SmartSite Forums **by 2 PM before every seminar** concerning the reading for the day – ask questions, raise objections, give reflections, etc.

**Coordination of seminar(s):** You will coordinate at least one seminar using a visual aid (handout or PowerPoint-type slides – contact me before class for help with photocopying or projector set up). Your job as coordinator is to stimulate and lead discussion. So, you should **1)** Give enough of a summary of the readings to stimulate discussion, but don't attempt a point-by-point summary (we can always turn to the article during discussion if necessary). Be sure to provide an overview of the overall argument. And, **2)** raise issues for discussion (not simply, “what did you think about that?”). As coordinator, it is OK if there are parts of the articles that you didn't understand; ask those questions for group discussion.

**Term paper:** Your paper may analyze any of the readings discussed in class, any of the optional readings, or offshoots of those readings (follow the citations of class readings or look for papers that cite the class readings). Contact me if you wish to do something other than the above.

A sketch/outline of your term paper is due in class on Thursday, **February 25**. I will be out of town, giving all of you the opportunity to provide feedback to one another about ways to improve and extend your ideas.

Prepare your paper (more or less) in the style of a *Philosophy of Science* article. Your paper should be approximately 5000 words (the length of a Philosophy of Science Association conference paper).

### Important note on plagiarism/cheating:

It is a violation of the Code of Academic Conduct to turn in work that is not your own. This includes: turning in the work of another student with your name on it, buying/copying a paper off the Internet, using the words *or* ideas of others without proper quotation and citation. In accordance with Regulation 550 of the Davis Division of the Academic Senate, **a grade of "0" will be assigned to assignments on which cheating, plagiarism or any other form of academic dishonesty is admitted or determined to have occurred by proper adjudication.** If you have trouble with the class material or have personal issues that prevent you from doing your work, come talk to me.

### Tentative Schedule - All dates and readings are subject to change.

Day	Author	Title	Year	Description	Coor.
Jan 7	Ghiselin, Michael	“A Radical Solution to the Species Problem”	1974	Argues that species are individuals	RLM
“ “	Hull, David	“Are Species Really Individuals?”	1976	Argues that species are individuals	
Jan 14	Kitcher, Philip	“Species”	1984a	Species are sets	
“ “	Sober, Elliott	“Sets, Species, and Evolution: Comments on Kitcher”	1984	reply to Kitcher 1984a	
“ “	Kitcher, Philip	“Against the Monism of the Moment: A Reply to Sober”	1984b	reply to Sober 1984	
Jan 21	Mayr, Ernst	“The Ontological Status of Species”	1987	Alternates to indivs and classes	
“ “	Mishler & Brandon	“Individuality, Pluralism, and the Phylogenetic Species Concept”	1987	Refines notion of species as indivs	
Jan 28	Wilson, Jack	<i>Biological Individuality</i> , Chs. 1 and 2	1999	intro, phil roots of individuality	
Feb 4	Wilson, Jack	<i>Biological Individuality</i> , Chs. 3 and 4	1999	individuality & equivocation, biol. or	
Feb 11	Wilson, Jack	<i>Biological Individuality</i> , Ch. 5 only	1999	generation & corruption	
“ “	Wilson, Jack	“Ontological Butchery: Organism Concept and the Species Problem”	2000	an organism concept?	
Feb 18	Wilson, Robert	<i>Genes and the Agents of Life</i> , Ch. 3	2004	a monist conception of organism	
“ “	Pepper & Herron	“Does Biology Need an Organism Concept?”	2008	operational def of organism	
Feb 25	No reading; in-class discussion of your paper sketch/outline				
Mar 4	Wilson DS & Sober	“Reviving the Superorganism”	1989	individuality & units of selection	
“ “	Sterelny, Kim	“The Return of the Group”	1996	individuality & units of selection	
Mar 11	Hamilton et al.	“Social Insects and the Individuality Thesis”	2009	Other applications of indiv concept	
“ “	Odenbaugh, Jay	“Seeing the Forest and the Trees: On the Ontology of the Organism Concept”	Forthc	Other applications of indiv concept	