Both ancient thought and modern science encourage a metaphysical view of our world according to which the macroscopic denizens of our world are constituted by unobservable microscopic objects. This view’s grip is so powerful that questions regarding the relationship between the microscopic objects, their properties, and our best theories about them on the one hand, and the macroscopic objects, their properties, and our best theories about them on the other hand take central stage in much of theoretical philosophy, e.g. in metaphysics, philosophy of mind, and philosophy of science. These relationships are often explicated in terms of reduction, emergence, and supervenience. This seminar will articulate these concepts and discuss the philosophical problems that arise from them. Since this is a course in philosophy of science, we will also pay significant attention to scientific perspectives on reduction and emergence, alongside metaphysics and philosophy of mind. We will read a combination of contemporary classics and recent contributions to the field.

Prerequisites: Graduate standing or permission of the instructor.

Distribution requirements: This course can be counted towards the fulfillment of the distribution requirement in philosophy of science.

Required texts


- Further mandatory (and perhaps some recommended) readings will be made available through e-reserves or online (password is ‘cw245’).

- The Stanford Encyclopedia of Philosophy [http://plato.stanford.edu/] has many excellent background and survey papers.

Course requirements and evaluation

The following are necessary and jointly sufficient conditions to obtain letter grade credit for this seminar:
1. **Participation:** You are expected to attend all classes and to actively participate in discussions. If you have to miss a class, you must let me know promptly.

2. **Class presentations:** Every participant should expect to give three presentations of roughly 15 minutes. You are expected to do something visual (blackboard, overheads, handout). Do not try to be comprehensive; rather, synthesize the important parts (main thesis, main argument) and offer some critical thoughts for discussion.

3. **Short papers:** Submit 5 short papers of 3 to 4 pages, reflecting readings for the meeting when the paper is submitted. I want to see a clear statement of the main thesis of the article you are discussing, a brief summary of the main argument, and *your independent judgment and critical reflection*.

or

**Seminar paper:** Submit a term paper of 15 to 20 pages or so, on a topic approved by me. Please submit a paragraph-long outline of your project by Tuesday, **26 November 2013**. The full paper is due on Thursday, **12 December 2013**.

**Topics and readings**

Please note that the topics listed do not map bijectively to meetings; the plan would to just go through them more or less in order. The reading list is tentative and will be adjusted to meet participants’ interests. In particular, I only expect us to cover a strict subset of this list. Talk to me if you would like to read some general background texts in metaphysics or read up on a particular topic. ‘BHxx’ signifies essay number xx in the collection edited by Bedau and Humphreys.

(1) **Classics**

- Carl Hempel and Paul Oppenheim, ‘On the idea of emergence’, BH02.

(2) **General concepts**


(3) The philosophical debate
• Jaegwon Kim, ‘Making sense of emergence’, BH07.
• Paul Humphreys, ‘How properties emerge’, BH06.
• John Searle, ‘Reductionism and the irreducibility of consciousness’, BH03.
• Mark Bedau, ‘Downward causation and autonomy in weak emergence’, BH08.
• Daniel Dennett, ‘Real patterns’, BH09.

(4) More in philosophy of mind

(5) Multiple realizability
• Jerry Fodor, ‘Special sciences’, BH22.
(6) Supervenience

- Brian McLaughlin, ‘Emergence and supervenience’, BH04.

(7) Reduction as a relation between theories


(8) Scientific perspectives on emergence


Please let me know if there are particular topics or readings you would like to discuss in the seminar. I (and the class) may be willing to accommodate your wish.