Course Description

This is a course on the philosophical foundations of the field now known as cognitive science. The course will be organized around the following four areas.

**PHILOSOPHICAL BACKGROUND: THE MIND AND BODY**
What is the relationship between the mind and the body? Dualists claim that the mind and the body are fundamentally different. Physicalists claim that the mind is ultimately explainable in terms of the physical. Understanding this background will help us understand the philosophical foundations of cognitive science.

**MIND AS COMPUTER**
With the advent of modern computing, and an important set of challenges to extant philosophical theories of mind, came functionalism. Functionalism understands mental entities in terms of their causal-functional or computational role. Thinking about the mind this way opens the door for artificial intelligence: genuine, thinking computers. We will consider the principles basic to this general category of theory, as well as some important challenges to different versions of AI and cognitive science.

**MENTAL REPRESENTATION**
Another important thesis for cognitive science is that the mind represents the world. If this is true, then we need a theory of mental representation—a theory that explains how cognitive states manage to be about things in the world (and thus how computational states can achieve this kind of representation). We will consider both classical and connectionist approaches to this question, both of which understand mental representation, broadly, in terms of computing.

**RECENT CHALLENGES AND DEVELOPMENTS**
We finish the course by considering some recent challenges to some basic assumptions of cognitive science. How can the various disciplines supposed to constitute cognitive science work together to provide a unified explanation of the mind? What are the appropriate levels for describing cognitive operations: functional, physical...? What importance, if any, should we place on the body or the environment in studying cognition?
**Required Text**

*Mindware*, Andy Clark (Oxford University Press 2000)

All remaining readings will be available on the course CANVAS website.

**Grading**

- 15% Participation
- 25% Exam 1
- 25% Exam 2
- 35% Final exam

Exams: The exams will be multiple choice, short answer, and short essay. The Final will be cumulative.

Participation: this is mostly composed of participation in class discussion. The course will have designated times devoted to discussion, so attendance is crucial if you are to get full points here.