

Honors 308-01: Consciousness and Cognition  
Mo/ We 4 – 5:15pm AF 205

**Professor:** Jessica M. Walker, Ph.D. **Office:** Crean 201 **Office Hours:** Mo/We 5:30 – 6:30 AF Qdoba area  
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Get ready for an adventure as we use our consciousness to understand consciousness (how meta!).

“The almighty human brain: the only hunk of matter in the universe that can reflect upon its own existence.”

**TEXTBOOK:**

Blackmore, Susan J. (2011). *Consciousness: An Introduction, 2nd Edition*. ISBN-13: 978-0199739097  
Supplemental readings will be provided throughout the semester.

**COURSE DESCRIPTION:**

How is it possible that in a universe made of mindless atoms following physical laws, some of those atoms have the capacity to produce a first-person, subjective, *conscious experience* of the world? How can a hunk of brain matter produce an “inner life” of thoughts, perceptions, and feelings? In short, how does mindless matter become mind? The existence of consciousness is a profound scientific mystery and our inability to explain it is arguably the biggest gap in our scientific understanding of reality.

This course will focus on understanding consciousness from the perspective of philosophy of mind, philosophy of science, ethics, cognitive neuroscience, cognitive science, and artificial intelligence. The course will be organized around the following major questions from each discipline.

- Philosophy of mind/Philosophy of science: What *is* consciousness, and what is the problem? Can our current laws of physics account for consciousness? What would a scientific explanation of consciousness entail?
- Ethics: What is the relationship between consciousness, values, and right/wrong?
- Cognitive neuroscience: Where is consciousness in the brain? How do my conscious cognitive experiences of thinking, feeling, remembering and perceiving relate to the physical processes going on in my nervous system?
- Cognitive Science: Are all cognitive processes conscious?
- Artificial Intelligence: Can computers be conscious? What would it take for a machine to be conscious? Is consciousness substrate independent?

**COURSE LEARNING OBJECTIVES**

- Understand the philosophical problem of consciousness and how it relates to other issues in philosophy of mind, philosophy of science, ethics, psychology, cognitive neuroscience, cognitive science, and artificial intelligence.
- Demonstrate basic understanding of the major philosophical positions and scientific theories of consciousness, as well as the arguments for and against those theories.
- Develop skills to critically evaluate the strengths and limitations of different approaches to the problem of consciousness.
- Demonstrate the ability to construct and critically analyze complex arguments, and distinguish good reasoning from bad.
- Become better acquainted with the functioning of your own consciousness through reflection and discussion.
- Consider the ontological, epistemological, and ethical issues surrounding the creation and recognition of artificial minds (e.g., robots and machine consciousness).
- Construct novel argument(s) to answer a problem or issue in the study of consciousness that integrates and interprets findings in philosophy of mind, psychology, cognitive-behavioral neuroscience, cognitive science, and/or artificial intelligence.

**COURSE FORMAT:** Each class will focus on a particular concept or problem in the study of consciousness. There will be minimal lecturing -- the course is primarily discussion-based. Class attendance and participation is required. I want to hear what you think!

**GRADES:** Student grades will consist of: class participation, presentation, consciousness labs, reading checks, and final paper. Each category is described in detail following the point distribution.

Participation:	250pts
Presentation:	250pts
Consciousness Labs:	140pts
Reading Checks:	60pts
Final Paper:	300pts
<u>TOTAL:</u>	<u>1000pts</u>

**Participation:** This course will employ a dialectical approach to understanding consciousness. We will examine the issues together, in discussion. I encourage you to communicate your thoughts to the class – I want to hear what you think! You will be graded not only how often you contribute to class, but on how pertinent and insightful it is to the conversation at hand. *Participation is a large part of your grade (25%) and should not be taken lightly.*

**Presentation -- Discussion Leadership:** Students (alone or in pairs) will present on one of the major questions/problems/issues surrounding the nature of consciousness, and lead the class discussion on the issue. You should aim to have students i) understand the nature of the question/problem and ii) critically evaluate the major attempt(s) to answer the question or solve the problem. Signups for the presentation topics within each unit (PART I – V) will happen online (Google Sheets) at the start of the semester. I strongly encourage you to meet with me before your presentation if you want help, direction, advice, etc.

**Consciousness Labs:** There will be 8 Consciousness Labs over the semester (each worth 20 pts). Each Consciousness Lab will consist in an activity that allows you to highlight and/or reflect on a particular aspect of your conscious experience. The goal is to explore the nature of your own consciousness (a “first-person approach”) – and perhaps that of your furry friends! Consciousness Labs will be posted on Blackboard. Each

- I drop your lowest Lab score at the end of semester!

**Reading Check Questions:** Most weeks you will turn in brief answers to questions on the assigned readings. The goal of the reading checks is to help you understand the important points in the readings, so we can have interesting and informed discussions in class.

- Each reading question should be answered in a few sentences to a paragraph.
- They will be graded on a  $\sqrt{-}$  /  $\sqrt{}$  /  $\sqrt{+}$  basis
  - $\sqrt{-}$  = “just ok” (6/10)
  - $\sqrt{}$  = **very good/meets expectations (8/10)**
  - $\sqrt{+}$  = exceptional (10/10)
    - Note that a  $\sqrt{+}$  is reserved for **exceptional** and is expected to be rare.
- I drop your lowest Reading Questions score (I only count your 6 highest scores in your grade).
- On BB there will be a READINGS FOLDER for each Week.
  - The folder will contain .pdf’s of the supplemental readings (i.e., readings not in the textbook) and the Reading Questions document.
  - The due dates for the Reading Questions will be posted on the document. Late submissions will be accepted, but do not abuse the privilege!

**Final Paper:** Pick any topic or issue we have talked about thus far, and give a thoughtful analysis in which you argue for a particular position integrating both philosophical and scientific approaches to understanding consciousness. More details to follow. (4-6 page paper)

**COURSE SCHEDULE.** Note that this is the professor's best estimate of course schedule and readings (supplementary readings will be provided on Blackboard). Subject to change with notice. Additional readings may be added at the professor's discretion.

**PART I: Identifying the Problem(s)**

- What are the philosophical problems and what are (some of) the proposed solutions?
- Is dualism scientifically feasible?
- Can we avoid epiphenomenalism?
- Does consciousness have causal efficacy?
- Could consciousness emerge from non-conscious matter?

Week 1: Intro; Blackmore Ch 1

Descartes (selections from The Meditations on First Philosophy)  
Searle -- Minds, Brains, & Science

Week 2: Blackmore Ch 2

Nagel – What is it like to be a bat?  
Chalmers – Facing up to the Problem of Consciousness

LAB: Consciousness Lab 1

Week 3: Blackmore Ch 3

Gennaro – Higher Order Theories of Consciousness  
Velmans – How could Conscious Experience Affect Brains? (2002)  
Libet – Can Conscious Experience Affect Brain Activity? (2002)

Week 4: Ch 4

Baars – Global Workspace Theory of Consciousness (2005)  
Dennet – Video

LAB: Consciousness Lab 2

**PART II: Minds, Brains, Science**

- How do my conscious cognitive experiences of thinking, feeling, remembering and perceiving relate to the physical processes going on in my nervous system?
- How does consciousness emerge from non-conscious matter?
- What would a scientific account of consciousness entail?
- Can our current laws of physics account for consciousness?

Week 5: Blackmore Ch 10

Blackmore Ch 11

Week 6: Blackmore Ch 12

Crick & Koch (A Framework for Consciousness)  
Tononi (Integrated Information Theory)  
McQueen (Does Consciousness Cause Quantum Collapse?)

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Week 7: Blackmore 6 (Weds)  
LAB: Consciousness Lab 3

### **PART III: Consciousness and The Self**

- What is the relationship between reality and your consciousness?
- What is the relationship between *you* and *your consciousness*?
- Does consciousness imply free will? Does free will imply dualism?
- What is animal consciousness? Do animals have free will?

Week 8: Mon: Sartre – excerpts from *Being and Nothingness*  
Weds: Blackmore Chs 7, 8  
James – Does Consciousness Exist?

Week 9: Monday: Blackmore Ch 5, 9  
Libet – Reflections on the Interaction of the Mind and Brain (2006)  
LAB: Consciousness Lab 4

Week 10: 13, 14  
LAB: Consciousness Lab 5

### **PART IV: Other Minds – Machine Consciousness & Cognition**

- What is cognition, and to what extent is it conscious?
- Is consciousness a biological phenomenon, or is it substrate independent?
- Can machines be conscious? If so, how would we know that a machine was conscious?
- What would it take for a machine to be conscious?

Week 11: Mon: Blackmore Ch 15  
Weds: Blackmore: 16, 17  
Searle – Excerpts from *Mystery of Consciousness*; and *Minds, Brains, Science*  
LAB: Consciousness Lab 6

Week 12 Mon: Blackmore Ch 18, 19

### **PART V: Paranormal and Altered States of Consciousness**

Week 12 Weds: Blackmore Ch 20, 21  
LAB: Consciousness Lab 7

Week 13: **THANKSGIVING BREAK!** {Thanksgiving Week; no class!}

Week 14: Mon: Blackmore Ch 22  
Weds: Blackmore Ch 23  
LAB: Consciousness Lab 8

Week 15: Mon: Blackmore Ch 24, 25  
Weds: Blackmore Ch 26, 27

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Chapman University is a community of scholars which emphasizes the mutual responsibility of all members to seek knowledge honestly and in good faith. Students are responsible for doing their own work, and academic dishonesty of any kind will not be tolerated anywhere in the university.

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**STUDENTS WITH DISABILITIES POLICY:**

In compliance with ADA guidelines, students who have any condition, either permanent or temporary, that might affect their ability to perform in this class are encouraged to contact the Disability Services Office. The Disability Services Office will work with the appropriate faculty member who is asked to provide the accommodations for a student based on the documentation and the individual student needs. The granting of any accommodation will not be retroactive and cannot jeopardize the academic standards or integrity of the course.