

# Mind and Mind Design Syllabus

(PHILOSOPHY 301)

**BOWIE STATE UNIVERSITY**

**Department of History and Government**

**Developed by: Dr. Fred Mills**

In cooperation with: THE MIND PROJECT, Illinois State University.

## **COURSE DESCRIPTION**

This WEB ENHANCED will critically assess the computational model of mind that has emerged in cognitive science by studying the traditional mind/body problem, the contemporary physicalist critique of Cartesian dualism, the claims of strong artificial intelligence, and the symbol system hypothesis. The course includes a lab component in order to experiment with a software computational model of the mind.

## **REQUIRED TEXTS, WEB RESOURCES, AND WEB BASED ALTERNATIVES**

Blackmore, S. (2011). *Consciousness: An Introduction*. Second edition. Oxford University Press. [Buy this book] Haugeland, J., ed. (1997). Mind design II.: Philosophy, psychology, artificial Intelligence, revised and enlarged edition.

Copeland, Jack (1993). Artificial intelligence: A philosophical introduction. Malden, Massachusetts:Blackwell Publishers, Inc. [Do not buy this book, as it will be on reserve]

Descartes, Rene (1996). Meditations on first philosophy. Cambridge: Cambridge Press. [Original published in 1641]. WEB SOURCE: For Descartes Meditations, short biography and time line,

Selected articles will be provided by the instructor.

Students should consult the The Mind Project as a great source of inspiration for paper topics.

## **English Proficiency Examination**

After completing ENGL 101 and 102, Composition and Literature I and II, students must take and successfully pass the Bowie State University English Proficiency Examination. Transfer students who completed their English composition requirements at another university should take the English Proficiency Examination during their first semester of enrollment at the University.

## **ADA ACCOMMODATIONS**

Students with disabilities who wish to receive ADA accommodations should report to the Office of Special Populations.

**REGISTER FOR THIS COURSE: only students registered for the course may receive a grade.**

## LEARNING OBJECTIVES

Students will acquire an understanding of the early modern concept of mind, two basic critiques of the Cartesian subject and critically assess the paradigm shift from a dualist to a computational functionalist perspective. Students will analyze the sufficiency or deficiency in the "normal" scientific method for studying mental processes. Students will be able to engage in debate over whether machines can think or can be designed to think in the future.

In particular, students are expected to acquire the following (objectives) competencies:

1. describe the Cartesian concept of mind;
2. understand the mind/body problem raised by metaphysical dualism;
3. distinguish between Chalmers's "easy" versus "hard" problem of consciousness studies;
5. understand the functionalist approach to consciousness studies;
6. explain the representational theory of knowledge;
7. understand the notion of attention and consciousness;
9. identify alternatives to the "Cartesian Theatre" model of mind;
10. discuss what it means to have a conscious visual experience, including the phenomena of filling in the gaps and change blindness;
11. assess several theories of the nature of the human self, agency, and free will and distinguish between ego and bundle theories;
12. explain the evolution and function of consciousness, including the meme theory of the spread of ideas;
13. assess the nature of machine intelligence with a focus on the Turing test;
14. describe the basic features of digital versus parallel distributed processing;
15. define the symbol system hypothesis;
16. critically assess the limitations of the symbol system hypothesis;
17. explain the Searlean distinction between "strong" and "weak" AI and the Chinese room experiment;

18. critique the claim that machines have real intentionality;

The attainment of these competencies will be measured by student contributions to WEB BASED conferences and discussions (quantity and quality of contributions), periodic exams, and a final paper.

### **Teaching Modalities**

This is a WEB assisted course. Teaching modalities include, lecture, individual and group problem solving, audio-visual, software for practice exercises, and classroom debates. The instructor will encourage the development of critical writing skills by including short essay assignments and essay type quizzes. Students will receive detailed comments and suggestions on their writing skills.

### **KNOWLEDGE BASES**

Critical Thinking skills are developed by understanding mind and mind design. Technology perspective is developed by using Mind Project Web-based materials.

### **COURSE REQUIREMENTS**

1. The student is responsible for reading and participating in discussions on assigned topics, all readings in the required text, assigned supplemental readings, homework, and for attendance of class lectures. Homework will be collected periodically for review.
2. No make-up or late work will be accepted without prior permission from the instructor. Missed exams count as a ZERO grade.
3. There will be periodic quizzes, a midterm evaluation, and a final paper.
4. The instructor reserves the right to modify the organization and grading of this course to adjust for any unforeseen occurrences.

### **THE GRADING SYSTEM**

Average Score of quizzes: 50%

Class participation: 10%

Final Paper: 40%

TOTAL: 100%

A = 90 - 100, B = 80 - 89, C = 70 - 79, D = 60 - 69, F = below 60.

### **ATTENDANCE POLICY**

See the student handbook.

## Participation

9.0-10 points: Excellent attendance and frequently participates; demonstrates understanding of the subject matter.

8.0-8.9 points: Good attendance and frequently participates; shows basic grasp of learning objectives.

7.0-7.9 points: Occasional contribution to the class and good attendance.

6.0-6.9 points: Rarely participates and missing more than three classes.

5.9 or less: Poor attendance and/or lack of participation in class.

## FINAL EXAM POLICY

FINAL EXAMS MAY ONLY BE TAKEN ON THE DATES AND TIMES LISTED FOR EACH CLASS IN THE PUBLISHED SEMESTER SCHEDULE. Final papers must be hand delivered to the instructor on or before the due date.

## Weekly Reading Units

Readings for Weeks 1, 2 and 3: Rene Descartes. Meditations (esp. I, II, V, VI); Selection: Thomas Hobbes.

Topics for discussion

### I. The early modern concept of mind.

----A. Mind/body dualism and the mind body problem ----B. Parallelism of Spinoza (lecture)

----C. Physicalism of Hobbes and La Mettrie ----D. Representational Theory of Knowledge

Reading for Weeks four and five: Blackmore, section one.

### II. The Problem of Explaining Conscious Experience

----A. The Conceptual Gap in Consciousness Studies

----B. Phenomenal Experience ----C. Functional Accounts

Reading for weeks six and seven Blackmore, section two.

### III. Attention and Consciousness

----A. The nature of attention ----B. The Cartesian Theatre

----C. Alternative Views of Attention

Reading for weeks six and seven: Blackmore, section three

#### **IV. Theories of Identity**

----A. Ego and bundle theories of identity. ----B. The notion of free will

Reading for weeks eight and nine. Blackmore, section five, pp. 206 - 237.

#### **V. The Evolution and Function of Consciousness**

----A. The Evolution of Consciousness ----B. The Function of Consciousness

Reading for weeks ten and thirteen: Blackmore, section six. Turing and the philosophy of AI. Selections from Copeland. Mind Project Modules as Assigned.

#### **VI. Artificial Intelligence**

----A. Computational functionalism and multirealizability (medium independence)

----B. The Turing Test ----C. Some early AI programs ----D. Can a machine be conscious?

----E. The symbol system hypothesis ----F. Mind Project Modules Assigned

#### **VII. Week Fourteen: Term Paper Reviews**

##### **Suggested Readings**

Contemporary: **Online sources, up to 2011: <http://philpapers.org/browse/philosophy-of-mind>**

Hard copy:

Agre, P. and Rosenschein, S. (1996). Computational theories of interaction and agency. Cambridge, MA: The MIT Press.

Bradshaw, J. (1997). Software agents. Cambridge, MA: The MIT Press.

Chalmers, D, Putnam, H., Dennett, D. (2009) Mind and consciousness. Automatic Press.

Chalmers, D. (2010). The Character of Consciousness. New York: Oxford University Press.

Churchland, P.M. (1994). Matter and consciousness. Cambridge, Massachusetts: The MIT Press.

Crane, T. (2001). Elements of Mind. Oxford University Press.

Crick, F. (1994). The astonishing hypothesis. New York: Scribner's

Crumley II, J.S. (2006) A brief introduction to the philosophy of mind. Rowman & Littlefield Publishers, Inc.

Demasio, A. (2010) Self Comes to Mind: Constructing the Conscious Brain. New York: Pantheon.

Dennett, D. (1996). Facing backwards on the problem of consciousness. Journal of Consciousness Studies, 3, 4-6.

Gallagher S. and Zahavi, D. (2008). The Phenomenological Mind: An Introduction to Philosophy of Mind and Cognitive Science. Routledge.

Hameroff, S., Kaszniak, A., and Scott, A (eds.) (1996). Toward a science of consciousness: The first Tucson discussion and debates. Cambridge, MA: The MIT Press

Kosslyn, S. (1994). Image and brain. Cambridge, Massachusetts: The MIT Press.

Kim, Jaegwon (2010). Philosophy of Mind, Colorado: Westview Press Inc.

Jaworski, W. (2011). Philosophy of Mind, Oxford: Wiley-Blackwell.

McLaughlin, B. et al (2011). The Oxford Handbook of the Philosophy of Mind. New York: Oxford University Press, USA.

McLaughlin, B. and Cohen, J. (2007). Contemporary debates in the philosophy of mind. Wiley-Blackwell.

Poole, D. (2010). Artificial Intelligence: Foundations of Computational Agents. Cambridge: Cambridge University Press.

Searle, J. (1997). The mystery of consciousness. New York: The New York Review of Books

Shanahan, M. (1997). Solving the frame problem. Cambridge, MA: The MIT Press.

Stork, D. (1997). Hal's legacy: 2001's computer as dream and reality. Cambridge, MA: The MIT Press.

#### **Prior to 1994**

Barnes, W. H. F. (1968). Did Berkeley misunderstand Locke? In D.M.

Armstrong and C.B. Martin (Eds.), Locke and Berkeley (pp. 78-85). Notre Dame, Indiana: University of Notre Dame Press.

Berkeley, G. (1979). Three dialogues between Hylas and Philonous. Indianapolis, Indiana: Hackett Publishing. (Original world published 1713)

Brooks, R. (1990). Elephants don't play chess. In Pattie Maes, ed., Designing autonomous agents. Cambridge, MA: MIT Press.

- Chalmers, D. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2, 200-219.
- Dennett, D. (1991). *Consciousness explained*. Boston, Massachusetts: Little, Brown, and Co.
- Dennett, D. (1993). *Brainstorms*. Cambridge, Massachusetts: The MIT Press.
- Descartes, R. (1967a). Discourse on the method of rightly conducting the reason. In *The philosophical works of Descartes (Vol. 1, pp. 79-130)*. [E. Haldane and G.R.T. Ross, Trans.]. New York: The Syndics of the Cambridge University Press. (Original work published 1637)
- Descartes, R. (1967b). Meditations on first philosophy. In *The philosophical works of Descartes (Vol. 1, pp. 131-199)*. [E. Haldane and G.R.T. Ross, Trans.]. New York: The Syndics of the Cambridge University Press. (Original work published 1641)
- Descartes, R. (1967c). Objections urged by certain men of learning against the preceding meditations; with the authors replies. In *The philosophical works of Descartes (Vol. 2)*. [E. Haldane and G.R.T. Ross, Trans.]. New York: The Syndics of the Cambridge University Press. (Original work published 1641)
- Descartes, R. (1967d). Principles of philosophy. In *The philosophical works of Descartes (Vol. 1, pp. 210-302)*. [E. Haldane and G.R.T. Ross, Trans.]. New York: The Syndics of the Cambridge University Press. (Original work published 1644) Edelman, G. (1989). *The remembered present: A biological theory of consciousness*. New York: Basic Books.
- Fodor, J. A. (1975). *The language of thought*. New York: Crowell. Paperback, Cambridge, MA: Harvard University Press, 1979.
- Franklin, S. (1995). *Artificial minds*. Cambridge, MA: MIT Press.
- Hintikka, J. (1968). Cogito ergo sum: inference or performance? In
- W. Doney (Ed.), *Descartes: A Collection of critical essays* (pp. 108-139). Garden City, New York: Doubleday.
- Husserl, E. (1958). *Ideas: A general introduction to pure phenomenology*. [W.R.B. Gibson, Trans.]. New York: The Macmillan Company.
- Husserl, E. (1965). *Phenomenology and the crisis of philosophy* [Q. Lauer, Trans.]. New York: Harper and Row. (Original work published 1911)
- Hut, P., and Shepard, R.N. (1996). The hard problem: upside down and sideways. *Journal of Consciousness Studies*, 3, 313-329.
- Jackson, F. (1982). Epiphenomenal qualia. In *Philosophical Quarterly*, 32: 127-36.
- Locke, J. (1956). *Essay concerning human understanding*. In S.P.
- Lamprecht (Ed.), *Lock selections* (pp. 81-317). New York: Charles Scribner's Sons. (Original work published 1689)

Minsky, M. (1968). *Semantic information processing*. Cambridge, MA: MIT Press.

McGinn, C. (1991). *The Problem of consciousness*. Cambridge, Massachusetts: Blackwell Publishers.

Nagel, T. (1988). What is it like to be a bat. In D.R. Hofstadter and D. Dennett (Eds.), *The mind's I: Fantasies and reflections on self and soul* (pp. 391-403). New York: Basic Books. (Original work published 1974)

Ryle, G. (1949). *The concept of mind*. New York: Hutchinson.

Sartre, J. P. (1957). *Transcendence of the ego*. New York: The Noonday Press, Inc.

Searle, J. (1984). *Minds, brains, and science*. Cambridge, Massachusetts: Harvard University Press).

Searle, J. (1991). Consciousness, unconsciousness, and intentionality. In E. Villanueva (Ed.), *Consciousness* (pp. 45-66).

Atascadero, California: Ridgeview Publishing.

Soffer, G. (1990). Phenomenology and scientific realism: Husserl's critique of Galileo. *Review of Metaphysics*, 44, 67-94.

Spinoza, B. (1955). *The ethics*. In R.H. Elwes (Ed.), *On the improvement of the understanding, the ethics, correspondence* (pp. 43-270). New York: Dover Publications. (Original work published 1677)

#### **Periodicals in Philosophy**

*Mind: A Quarterly Review of Philosophy*, ed. by Mark Sainsbury, Kings College, London.

The American Philosophical Association. *Proceedings and addresses*. Vol. 71, No. 4.

*The Review of Metaphysics: A Philosophical Quarterly*. The Catholic University of America.

*The Journal of Consciousness Studies*.

#### **Internet: Comprehensive Web Site for Philosophy**

See the [Philosophy Documentation Center](#)