Syllabus (incl. tests, assignments, grading), CSC191/291/22
Machines and Consciousness
(approx. lecture-by-lecture, with some slack)

1. Thu Jan. 13  Overview. Self-awareness (access consciousness) and phenomenal consciousness. Pinker, Could a computer ever be conscious? (Corry & Alicia)


6. Tue Feb. 1  Planning and decision making in robots. Notes by instructor

7. Thu Feb. 3  Continuation of above topics (spill-over)

8. Tue Feb. 8  A basic (self-aware) agent. Vere and Bickmore '90


10. Tue Feb. 15  A glimpse of games, vision & robotics. McDermott, p.29-39, p.47-64;


14. Tue Mar. 1  Split brains. Dreams and drugs. Blackmore p.70-72 Ch.5 & ch.7 (to p.111).

15. Thu Mar. 3  Animal C. Blackmore ch.8 (to p.124), Baars p. 31-33;
Robot phenomenal consciousness: "scannable" signal sites in the head? The whispering sunglasses. The topology of sensory C. Could a robot feel pain, joy? Project teams (1-3 students per team), CSC 291 should be finalized (with TA help, if needed)

16. Tue Mar. 8   SPRING BREAK

17. Thu Mar. 10   SPRING BREAK

18. Tue Mar. 15   Decision making and free will. Libet's lagging will. Wegner & mistaken sense of agency and nonagency. Blackmore ch. 3, esp. “Libet’s delay”; Blackmore ch. 6

18. Thu Mar 17   Review; TEST 1 (OVERNIGHT TO FRI MAR 18, 11:59PM)


21. Tue Mar. 29   Emotional processing (fear and love). Fellous & Ledoux, ch. 4, Fellous & Arbib

22. Thu Mar. 31   Robot "emotion". Breazeal & Brooks, ch. 10, Fellous & Arbib; PROJECT PROPOSALS DUE (1 printed page, single-spaced)

23. Tue Apr. 5   Heated vs. dispassionate appraisals. Evolution of language and C. Arbib, ch. 12, Fellous & Arbib.

24. Thu Apr. 7   McDermott's "computational theory of C". (Useful prior reading: McDermott’s overview of prior approaches, p. 19-27.) McDermott, ch.3; see also summary p. 215.

25. Tue Apr. 12 McDermott's defense of his model of C. Zombies, color-deprived Mary, inverted spectra, Nagel's bat, Searle's Chinese Room, etc. McDermott, ch.4

26. Thu Apr. 14 Robots, people, and morality. McDermott, ch.6

27. Tue Apr. 19 Reconsider: Will intelligent, autonomous robots experience pain?

28. Thu Apr. 21 Project presentations

29. Tue Apr. 26 (Project presentations, cont’d?) Review
TEST 2 (NONCUMULATIVE, OVERNIGHT TO WED APR 27, 11:59PM)

Schedule of assignments

Thu Jan 20: Lisp 1, due Tue Feb 8, 11:00am

Tue Jan 25: Homework 1, due Tue Feb 1, 11:00am

Tue Feb 8: Homework 2, due Tue Feb 15, 11:00am

Thu Feb 17: Lisp 2, due Mon Mar 15, 5:00pm

Tue Feb. 22: Homework 3, due Wed Mar 2, 5:00pm

Thu Mar 3: CSC 291 project teams (1-3 students per team) should be finalized (with TA help, if needed)

Tue Mar. 15: Homework 4, due Tues Mar 22, 11:00am

Thu Mar 17: TEST 1 (OVERNIGHT TO FRI MAR 18, 11:59PM)

Thu Mar 24: Project proposals due (1 printed page, single-spaced).

Tue Apr 5: Homework 5, due Tue Apr 12, 11:00am

Thu Apr 21: CSC 291 PROJECT PRESENTATIONS;

Tue Apr 26: TEST 2 (NONCUMULATIVE, OVERNIGHT TO WED 11:59PM)

Thu Apr 28: PROJECT REPORTS DUE

Grading % weight 191/291

- 5 homework assignments (answer questions, write essays) 40 35
- 2staged Lisp exercises (oriented towards "self-awareness") 26 16
- 2 tests (midterm & noncumulative final test) 34 24
- Gridworld project (teams of 1-3) 25