FS 102: Academic Discourse II  
Section 1: “Computing and the Mind”  
Fall 2009  
Bob Roos

Course Description and Policies

Office Hours: My office is in Alden 105, extension 2883. My hours are Tuesday 9:00 – 11:00 a.m., Wednesday, 2:30 p.m. – 4:30 p.m., Thursday, 9:00 – 11:00 a.m., and by appointment. The best way to schedule an appointment is to send me an e-mail. Don’t be shy about asking for appointments if you can’t make my scheduled office hours!

Text: I Am a Strange Loop by Douglas Hofstadter.

In addition there will be a number of readings from the Web and other sources.

Grading: (All percentages are approximate!)

- Attendance and participation approx. 10%
- Two research papers approx. 20% each
- Two oral presentations approx. 15% each
- Other assignments (short papers, Web assignments, quizzes, peer reviews, etc.) approx. 15%
- Final evaluation (during the final exam period) approx. 5%

Learning Objectives:

Computing and the Mind. One of the most debated issues in computer science, cognitive science, psychology, and philosophy is this: Will a machine (a computer, a robot, or some other artificially created device) ever be able to think? Is the human mind governed by physical laws that can, at least in principle, be harnessed to create an artificial mind? Can the mind be represented by a giant computer program?

There are a number of peripheral issues as well. Can computers be “creative”? Can they have an “interior life,” a “soul,” a “conscience?” Are computer-brain interfaces possible (or ethical)? Can computers, whether conscious or not, be entrusted with making life-and-death decisions? Of course we will not resolve these questions! However, we will study the arguments made by people on both sides of several of these issues. Along the way, we’ll examine methods for evaluating evidence and using it to communicate persuasively and rigorously.

By the end of the semester you should be very familiar with some of the major concepts in the mind/machine debate (“strong vs weak AI,” “the Turing test,” etc.), know the names and be familiar with the work of some of the major players in the debate (John Searle, Marvin Minsky, Raymond Kurzweil, William Joy, etc.), and experience a sense of just what is involved in tackling a difficult problem and appreciating the many perspectives for viewing it.

You will also choose a topic that interests you (no matter how tenuous the connection to the course material) and devote most of the semester to researching this topic, posing
some interesting questions or making some interesting assertions, and then answering these questions or defending your assertions in both written and spoken form.

**Reading, Studying, and Learning.** We’ll examine the process of “reading” by doing some experiments with a variety of kinds of text and discussing the results of our experiments. (The word “reading” is in quotes because we’ll try to be as inclusive as possible, e.g., audio versus print, abridgements and study guides versus original texts, etc.)

Studying and learning involve more than just reading. We’ll use the subject matter of the course as a test bed for looking at studying habits. We’ll make a brief sojourn into the psychological and cognitive science literature about how the mind learns, and examine some tools and techniques that provide support for learning.

You will formulate some goals for improving your reading and study habits, and as the semester progresses you will be asked to assess your progress in achieving these goals.

**Communicating.** The official Allegheny College catalog title of this seminar is “Academic Discourse.” The course is all about communicating ideas, in written and spoken form. Although we’ll be examining topics related to “Computing and the Mind,” the writing and speaking exercises will be generally applicable to just about any topic you might need to deal with in your academic career.

Once again, we will examine the writing and speaking abilities of ourselves and each other, identify goals for improving them, and assess progress. By the end of the semester you should have, not just a collection of grades or a list of rules, but a strategy that works for you for dealing with writing and speaking assignments.

**Policies:**

**E-mail.**

“The use of email is a primary method of communication on campus. . . . All students are provided with a campus email account and address while enrolled at Allegheny and are expected to check the account on a regular basis.” [from *The Compass*, The Allegheny Student Handbook]

**Attendance and Participation.** It is expected that students in this course will attend every class. Attendance will be taken periodically and a portion of the final grade will be determined by attendance. You are expected to be present in mind as well as body, so a percentage of your grade is allotted to participation in class discussions, asking questions of other student speakers during their oral presentations, and so on.

Whenever possible, advise me of legitimately excusable absences (illness, death in the family, and certain College sponsored activities) prior to the class you will be missing. (For instance, if you are ill on Tuesday evening and are fairly certain you will be unable to attend Wednesday’s class, send me an e-mail or phone me to let me know the night before if at all possible.)

If you know in advance of specific conflicts due to athletic events or other College-related reasons, please have the coach or other college official provide me with a list of dates and reasons as soon as possible so I can avoid problems in scheduling discussions, oral presentations, etc.
Late Policy. Every assignment will have a given due date and time (usually the time will be “at the beginning of class” on the due date). If the assignment is handed in after that, there will be a late penalty (minimum of 15% of the grade, increasing as more time passes). No assignment will be accepted more than one week after the due date. In this course, writing assignments will be followed by a “peer review” in which you will look at some of your classmates’ papers. Failure to hand in a paper on time will be very disruptive to this process (and will also negatively affect your grade for “peer reviewing”).

Special Needs and Disabilities The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Learning Commons at 332-2898.

Collaboration, Plagiarism, and the Honor Code. You are encouraged to periodically review the specifics of the Honor Code as stated in the College Catalogue and elsewhere.

No collaboration with others is permitted unless specifically provided for as part of the assignment. All assignments must consist of your own, original work. Whenever specific phrases and sentences or, more generally, non-trivial ideas from outside sources are used, they must be clearly and unambiguously identified. Taking someone else’s ideas and simply paraphrasing them is not enough to avoid charges of plagiarism — you must cite the sources of ideas other than your own.

Schedule

A complete, day-by-day schedule will have to wait (I learned about this course a bit too late to plan it all out in detail). However, here are the dates of some major assignments so that you can plan your other course work around them. Generally there will be readings every week, along with at least one other (small) writing or speaking assignment every week when there is no major assignment due.

- Weds., 30 September and Fri., 2 October: Oral presentations
- Weds., 7 October: draft of first research paper due
- Fri., 9 October: peer reviews of first research paper drafts due
- Fri., 16 October: final revision of first paper due
- Weds., 11 November and Fri., 13 November: Oral presentations
- Weds., 18 November: draft of second research paper due
- Fri., 20 November: peer reviews of second research paper drafts due
- Fri., 4 December: final revision of second paper due