cogito ergo sum

http://www.cs.stonybrook.edu/~cse505/
Tue., Thu. 8:30pm – 9:50pm
ESS 069

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Course Objectives

- Develop a fundamental understanding of logic as a programming language.
- Explore the computable fragments of first-order logic.
- Study the use of logic for specifying and programming complex systems.
What will you learn in CSE 505?

Logic Programming
- Programming in Prolog
- Computational Basis
  - Resolution, Unification, Memoization
- Extensions and Applications
  - Non-monotonic reasoning
  - Knowledge Representation
  - Probabilistic Logic Programming
  - Satisfiability (SAT) and descendants
  - Constraint Programming
  - Abduction and Inductive Logic Programming
Logic Programming

A framework for unambiguously specifying knowledge and computation
Logic Programming

A framework for unambiguously specifying knowledge and computation

http://xkcd.com/191/
Course Organization

Concepts, examples, program fragments discussed in class.

- **Exams:** One mid-term (30%) and a final (40%)
  Will cover reading, lectures and homeworks.

- **Homeworks:** (30% of grade)
  - Short-answer homeworks (incl. programming)
  - Mini projects (1 or 2)
Textbooks

No formal textbook.

  Out of print, but available from some online retailers

  Online (PDF); linked from course web page

Additional References:


Course Software and Facilities

- **XSB Prolog, SWI-Prolog**: freely available for Unix (Linux, Solaris, BSD, ... ) and Windows.
- Work from home or use CS Graduate Lab.
Course Support

- **Course Material**: handouts, homeworks, notes, etc will be available *directly from the course web site*.
- **Course Announcements**: available from the **blackboard system**. Check these regularly!
- **Course Discussion Board**: **Piazza**. Use this to discuss any course-related material: lectures, homework problems, exams, etc.

All homework assignments will be submitted via Git. . . More on this set-up later in the semester.
How to contact course staff:

- Course staff is likely to be a singleton set.
- Post your question on the discussion board.
- Come to my office during my office hours.
- Send me email. (Post on discussion board unless the question is personal).