Introduction to Cognitive and Information Sciences
Symbolic Systems 100
Todd Davies
April 1, 2008

Today

- Course overview
- Symbolic systems, cognitive science, information sciences
- Practical advice for taking the course
- Tips on the first reading

title change
Introduction to Cognitive Science
Introduction to Cognitive and Information Sciences

Purposes of the Course

The Symbolic Systems core
by fields

Philosophy

Logic and Probability

Computer Science

Psychology

Linguistics

connections between disciplines
grounding
thematic questions
interdisciplinary thinking

Course Structure

Four modules

I. Can computers think?

II. Is language innate?

III. Are people generally rational?

IV. Is technology good for us?

each module has...
4 class sessions
each class session has...

reading due before class

quiz (first 10 minutes)

lecture

In-class essays

Midquarter (May 6)

Final (June 10)

Weekly sections to deepen understanding

Study questions one week in advance

Who should take the course?

All Symbolic Systems majors

Interested students from...
•Linguistics
•Psychology
•Philosophy

Anyone else interested in...
•Cognitive science
•Information sciences

Staff

Todd Davies (Lead instructor)

Inbal Arnon (TA)

Aurelie Beaumel (TA)

Marie-Catherine de Marneffe (TA)

Rebecca Starr (Subject pool coordinator)

Nuts and bolts

register for the course!
books and readings
class sessions...
opening videos
quizzes
lectures
sections

exams

Midquarter essay (May 6, in class)
•make-up scheduling: contact Inbal one week in advance

Final essay (June 10, 3:30-6:30 pm)
•make-up scheduling: contact Marie two weeks in advance

Accommodation needs
•contact Aurelie one week in advance

video recordings of class sessions

Online resources

Course website: www.stanford.edu/class/symbsys100

Discussion list:
symbsys100-discuss@mailman.stanford.edu

Wiki:
http://symbsys100-2008.pbwiki.com

•Symbolic systems, cognitive science, information sciences

What is "Symbolic Systems" about?

the relationships between artificial and natural computation
•artificial intelligence
•cognitive science
•human-computer interaction

core topics: what people and computers have in common

a mixture of cognitive and information sciences

Cognitive Sciences
- Cognitive psychology
- Cognitive neuroscience
- Artificial intelligence
- Natural language processing
- Philosophy of mind

Information Sciences
- Human-computer interaction
- Communication
- Computer science
- Statistics
- Informatics
- IT and society

The Sym Sys core

Philosophy of mind
Logic and probability
Computer science
Cognitive psychology
Linguistics

analytical
formal
computational
experimental
observational

Example: Meno's trajectory

Concentrations

Applied Logic
Artificial Intelligence
Cognitive Science
Computer Music
Decision Making and Rationality
HCI
Natural Language
Neurosciences
Philosophical Foundations

Other features
SSP Forum (Thursdays 4:15)

Advising fellows

Research, internships, honors

Other events

How to take this course

Readings...
Finish reading before class
Do assigned reading first
Don’t freak out
Block out 4-5 hours per session
Find a quite place to study
Highlight and take notes
Use online supplements

Lectures...
come to class
show up on time
pay attention
take notes
quizzes - see above
exams...
go to sections
review study questions
post queries on discussion list
go to office hours
get a full night’s sleep