

**Reasoning and Critical Thinking (PHIL 156.001)**  
**Section One: Artificial Intelligence**

**Fall 1997**

**Syllabus**

"I have made a ceaseless effort not to ridicule, not to bewail,  
not to scorn human actions, but to understand them"      Baruch Spinoza

**Class Description:** Most intellectual endeavors involve argumentation. From short letters to the editor to complex philosophical essays, from simple everyday discussions to sophisticated legal debates, arguments are constantly invoked to support or criticize points of view. The purpose of this course is to help students learn how to analyze, critique and construct arguments. (An argument is a piece of reasoning, not a quarrel or a fight.) The course material is organized into two main parts. The first part is an introductory survey of important linguistic and logical concepts and tools that are needed for analyzing arguments. The second (and longer) part is an in-depth examination of a few philosophical essays focused on a small set of closely related questions and issues. Although no background in philosophy or logic is presupposed, the course requires a moderate degree of linguistic sophistication and a strong commitment to rational inquiry.

This section will focus on issues pertaining to the claims of Artificial Intelligence (or AI). Could machines think? That is could a computer with a sophisticated program simulate and duplicate the processes of the human mind? Proponents of artificial intelligence claim that they could, and could do so in ways comparable to humans. One consequence of this belief is that it supports the notion that human thinking could be just a complex (and biological) computer running a sophisticated program. We shall study a number of essays that deal with this question from the early period of computer development and more contemporary ones as well.

**Class Requirements:** We shall be moving quickly through a great deal of reading and writing. Therefore rigorous attendance is mandatory. If for any reason you cannot make class or turn in an assignment on time you must let me know before class if possible or before the next meeting, or you will receive no credit for the absence. For each unexcused absence or missing homework your total grade will be lowered one percent. However no more than 4 unexcused absences are permitted. There shall be daily homework and weekly writing assignments. In addition there shall be three quizzes and a final paper. Students will be expected to participate in class discussions and contribute in group activities.

**Required Materials:**      The Elements of Style, Strunk & White, MacMillan 3rd edition.  
   A Rulebook for Arguments, Weston, A. Hackett 2nd edition  
   Handouts from the Instructor

<b>Grades:</b>	Participation/Homework	10%
	Quizzes	30%
	Writing Assignments	30%
	Final Paper	30%

Students are encouraged to meet with me during office hours or at a scheduled appointment to discuss any difficulties or problems in the class. If, after such meetings, the problem is still present, the student may contact Professor A.M. Yaqub the supervisor of this program.

**Tentative Schedule** (Subject to minor changes)

<b>Week Of</b>	<b>Subject Matter</b>	<b>Requirements</b>
1/19	What is Critical Thinking? What is an argument? Schematization, Inference Analysis, Plausibility Analysis.	Warm body. Short Writing Assignment.
1/26	Language: What is logical writing? Logical and Rhetorical Styles. Pesky grammar rules. What you should have learned in High School.	Readings: Strunk & White, Intro. and pgs. 16-22 Quiz 1
2/2	Logic: Taxonomy of Arguments	Readings: Weston Sections II & III Handout, pages
2/9	Deductive Arguments	Weston Section IV - VI Handout pages Quiz 2
2/16	Probabilistic Arguments	Handout pages
2/23	Review	Weston Section X Quiz 3
3/2	Thinking and Computability	
3/9	Reading 1 <i>Alan Turing</i>	Rough Draft Paper 1 Writing Assignment 1
3/15	Spring Break No Classes	
3/23	Reading 2 John Searle	Rough Draft Paper2
3/30		Writing Assignment 2
4/6	Reading 3 Commentaries: John Fodor, Paul Churchland, John Searle II	
4/13		Rough Draft Paper 3
		Writing Assignment 3
4/20		Rough Draft Final Paper
4/27	Tutorials	Review
5/4	Tutorial	Individual Tutorials
5/11	Final Paper Due	Final Paper Due