



## PH 121 *Critical Thinking* (3) Fall 2002

**Instructor:** Terry Fach

**Office:** 5<sup>th</sup> Floor

**Office Hours:** Tues/Thursdays

**Office Phone:** 571-2550 ext 229

**Class Times:** T/Th 9:45 – 11 am

**Location:** Room 1

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### Required Texts

*Argument: Critical Thinking, Logic, and the Fallacies*, by J. Woods, A. Irvine, and D. Walton (Prentice Hall, 2000).

[Note: I use quite a few “handouts” in this class, which I will distribute during or at the end of the class period. If you miss receiving a handout (for whatever reason), you can pick up a copy outside my office door from the “Class Handouts” box.]

### Course Description

Simply stated, this is course about how to think. More specifically, it is a course on *how to think and argue better*. The general aim of the course is to help students distinguish good reasoning from bad, or better from worse. Reasoning is both an art and a science. As a science, good reasoning investigates, develops, and systematizes principles and methods that can be used to distinguish between correct and incorrect reasoning. But as an art or craft, reasoning can be equated with “logical ability” and includes a whole family of related skills that have many applications. Among those applications are problem solving, weighing evidence, constructing arguments for or against a disputed proposition, detecting mistakes in reasoning (including one’s own), and clarifying issues.

This course will study both argument theory and logic. Argument theory studies *argument in the broad sense*—it is sometimes called critical thinking or informal logic. The kinds of arguments we look at here include quarrels, debates in politics and in the newspapers, legal arguments, scientific controversies and so forth. Logic deals with *arguments in the narrow sense*. Logic focuses on breaking down the formal structure of arguments into their component parts (premises and conclusions). Most of our time in this course is spent on critical thinking, though we will look at some formal logic as well. We will also spend some time exploring problem-solving techniques, lateral thinking puzzles, and the role our own personalities play in critical and creative thinking.

## Course Objectives

The specific learning objectives of this course are:

- An understanding of the concepts, problems, and methods of reasoning
- Knowledge of techniques for critically analysing and evaluating arguments
- Improved general skills of thinking clearly and critically about different issues
- Awareness of and avoidance of common reasoning mistakes (fallacies)
- Improved learning skills relating to problem-solving
- Improved ability in oral and written communication
- Have some fun

## Course Schedule\*

Weeks	TOPIC	Text READING
Sept. 3	The Starting Point: "Know Thyself"	handouts
10	Arguments	Ch 1
17	The Debate	Ch 2
24	Dialectic	Ch 3
October 1	Problem-solving	handouts
8	Deductive Arguments	Ch 4
15	Ambiguity Fallacies and Paradoxes	Ch 5 & handouts
22	Aristotle's Logic	Ch 8
29	Aristotle's Logic cont.	Ch 8
Nov. 5	NUC Mid-Term Break: NO CLASSES	
12	Inductive Arguments	Ch 9
20	Circular Reasoning & Arguments from Authority	Chs 10 & 11
27	Economic Reasoning & Decision Theory	Ch 12
Dec. 3	A Bunch of other Common Fallacies	handouts
10	Legal Reasoning	Ch 13

\* Disclaimer: we are not strictly tied to this schedule and may deviate from it if necessary.

"Genius is the art of non-habitual thought."  
(William James)

## Course Requirements and Grading

### A. Critical Thinking Journal (20%)

All students need to purchase a notebook to use as a Critical Thinking Journal. [Note: The CT Journal is a different notebook than the one that you take lecture notes in.] One of the goals of this course is to help you develop and improve your thinking skills. One of the proven ways to achieve that goal is to **write**.

There are three main opportunities to use your Journal. First, when you are reading the text (or anything else for that matter) write down your observations, ideas, and questions (perhaps use one section of the Journal for this purpose). It is always helpful to go back and reflect on what you have written so that you can perhaps elaborate on the observations, or challenge some of your earlier ideas. Second, the CT Journal will also be the place to answer specific assigned questions--in class I will call these your "Journal assignment." Third, your Journal work will sometimes form the basis of class discussions. So-o-o-o...**bring your Journal to class every day.**

There are two main purposes for making the Journal a formal part of a course in critical thinking: first, it will improve your thinking and problem-solving abilities (a very valuable transferable skill); and second, it will improve your writing skills. **I will collect your Journal twice during this term, once at Mid-Term Evaluation week and again at the end of the term.** I will read and evaluate the overall quality of your work and the quantity of assignments completed. Evaluation of your Journal work will be based on (1) completeness (amount of assigned work completed); (2) effort demonstrated. Faithfully completing Journal entries will be worth 20% of your final grade. I will assign you a "half-way" grade at mid-term.

"I have never yet written anything, long or short, that did not surprise me. That is, for me at least, the greatest worth of writing, which is only incidentally a way of telling others what you think. Its first use is for the making of what you think, for the discovery of understanding, an act that happens only in language."

Richard Mitchell, *The Gift of Fire*

### **B. Quizzes (3x10 = 30%)**

There will be 3 quizzes covering material from the lectures, readings, and assignments. Each quiz is worth 10% of the final grade. Quizzes will normally take no more than 30-40 minutes of class time to complete. The purpose of the quizzes is to give class members an opportunity to test their understanding of recently covered course topics. See Quiz schedule below:

Quiz #1: September 26

Quiz #2: October 31

Quiz #3: November 28

### **C. Mid-Term Examination (20%): October 17**

This examination, on October 17, will cover course material from the beginning of the term. The purpose of the mid-term examination is to help students evaluate their progress at the half-way point in the term. This exam will take 75 minutes to write.

### **D. Final Examination (30%)**

This examination, during the December exam period, will cover all material from the Fall Term. The exam is based completely on material covered by the class lectures, assignments, and readings. It is, therefore, highly advisable to attend class regularly, complete assignments, and to take careful notes.

The following chart matches letter grades with a brief description and percentages:

A+	Exceptional	96-100
A	Excellent	91-95
A-		86-90
B+	Very Good	82-85
B	Good	75-81
B-		72-74
C+	Satisfactory	68-71
C	Adequate	63-67
C-		60-62
D+		56-59
D	Marginal	50-59
F	Failure	49% and below

### Important Notes

- **Contacting Me:** I can usually answer simple questions about the course material right after class. For anything more serious, it is preferable that you make an appointment to see me. I keep office hours at NUC on Tuesdays & Thursdays.
- **Class attendance policy:** All students are expected to attend class regularly and to prepare for lectures and discussions. See the NUC Calendar for NUC's official attendance policy.
- **Coming to Class Late:** if a student persistently comes late to class, he or she may be asked to withdraw from the class.
- **Minimum Standards of Correctness:** NUC has defined minimum standards for written work where applicable.
- **No Food in the Classroom during Class Time.** Beverages are allowed.