



PH 121 Critical Thinking (3) Fall 2004

Instructor: Terry Fach

Office Hours: Tuesday/Thursday 9:30 – 10 am

Class Times: T/Th 8:15 – 9:30 am **Class Location:** Room #633

Email addresses: terry.fach@auc-nuc.ca

Required Text:

Argument: Critical Thinking, Logic, and the Fallacies (2nd edition), by J. Woods, A. Irvine, and D. Walton (Prentice Hall, 2004).

[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 from the “PH 121 Class Handouts” box located by the NUC faculty mailboxes on 5th floor.]

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 the student distinguish good reasoning from bad, or better from worse. Reasoning is both an art and a science. As a science, good reasoning investigates and develops 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*.

1. **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.
2. **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).

In this course 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 while you are earning 3 of your required core credits

Course Schedule*

Weeks	TOPIC	READING
Sept. 6	Critical Thinking, Brains, and Your Intellectual Future	handouts
13	Arguments	Ch 1
20	The Debate	Ch 2
27	Dialectic	Ch 3
October 4	Elementary Logic: Basic concepts	Ch 4
11	Formal and Informal arguments	Ch 5 & handouts
	Mid-Term Examination—Oct. 15th	
18	Puzzles and Problem-Solving	handouts
25	A Formal Deductive System	Ch 6
	No class on October 27th	
Nov 1	Aristotle's Logic	Ch 8
	AUC-NUC Mid-Term Break: NO CLASS on November 12th	
8	Inductive Arguments & Scientific Reasoning	Ch 10
15	Continued...	Ch 10
22	Economic Reasoning	Ch 11 & handouts
29	Legal Reasoning	Ch 12
Dec 6	Review	

* 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. The Friday Quiz (10 x 2 = 20%)

At the end of every Friday class there will be a one or two-question quiz worth a maximum of 2 points. Two points are awarded if the answer is correct; one point will be awarded if there has been a valiant attempt to answer the question correctly. Each quiz is worth 2% of the total grade for the course. The purpose of the quizzes is to test for understanding of topics covered in that week's lectures, and to encourage students to attend class regularly.

B. Mid-Term Examination (30%)

This examination, on **October 15th**, 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.

C. Final Examination (50%)

This examination, during the December exam period (Dec. 10-15th), 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 Terry:** I can usually answer simple questions about the course material right after class. For anything more complex, please see me during my office hours or contact me by e-mail (terry.fach@auc-nuc.ca)
- **Class attendance policy:** All students are expected to attend class regularly and to prepare for lectures and discussions. See the AUC-NUC Calendar for 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.
- **No Food in the Classroom during Class Time.** Beverages are allowed in covered containers. I will strictly enforce this rule.