Critical Thinking 批判思考 (UGED1810A)
2014/15 second term

Lecture Hours   : Wednesday 16:30 - 18:15 pm
Classroom   : NAH 11

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A Few Important Preliminary Remarks

1. Students must read this outline carefully before registering to take this course so as to consider if it suits you, as well as during the course so as to get a clear direction of study.

2. Registered students must visit *Blackboard* regularly for updated information (e.g. the final version of the course outline, lecture material, etc.) and announcements of the course.

3. This course is taught in **Cantonese** but the lecture material, exercises and the examination will be in **English**. Technical terms in the lectures will be accompanied by Chinese translations and there are also Chinese works in the reference list.

Course Overview

Our capability to think is undoubtedly a unique and precious human characteristic. Although the capability itself is born, to utilise it properly must be acquired. This course aims to provide a basic training in critical reasoning as a methodological foundation of independent thinking. Students will learn how to extract, construct, and evaluate arguments; how to identify common fallacies and to reflect on how the use of language influences thought; and how to think critically about issues in both real life situation and theoretical arguments which they commonly encounter in the course of their studies.

Learning Outcomes

By attending the course, students are expected

1. to identify and explain the basic concepts, principles and other essential elements in meaning and truth analysis——the use of language and its consequences on thinking;

2. to identify and explain the basic concepts, principles and other essential elements in argument examination——argument identification, classification and assessment, fallacy analysis;

3. to employ these concepts and principles in identifying a good argument, and if the argument is not a good one, to explain which part goes wrong;

4. to employ these concepts and principles in a systematic manner so as to construct arguments from problem-solving and decision-making examples and assess the goodness of such arguments.

LEARNING ACTIVITIES include mainly lectures, short video chips, in-class group discussions and exams.

COURSE SYLLABUS

1. Introduction
   * what critical thinking is and why it is important

2. To think in a proper way I: some basic techniques
   this section relates chiefly to Learning Outcomes 1 and 3
   * the basic parts of an argument（論證）
   * two kinds of truth and their respective characteristics
   * arguments go wrong: fallacies（謬誤）
   * how language is involved in fallacies: ambiguity, vagueness, distortion, etc.
   * aim for clarity and precision: definitions

3. To think in a proper way II: arguments
   this section relates chiefly to Learning Outcomes 1, 2 and 3
   * two common forms of argument: deduction（演繹法）and induction（歸納法）
   * to assess the goodness of deduction: validity（有效）and soundness（對確）
   * to assess the goodness of induction: inductive strength and defeasibility （可修正性）
   * the traditional analysis of knowledge: justification, truth and belief (IF TIME ALLOWS)

4. The ultimate goal of critical thinking: argument analysis
   this section relates chiefly to Learning Outcome 4, which in fact serves as a consolidation of Outcomes 1, 2 and 3
   * the application of aforesaid techniques in constructing and analyzing real life arguments particularly in the field of problem-solving and decision-making

This is a draft. Details will be finalised when term begins.

COURSE SCHEDULE

Date	Topic(s)
Jan 7	Introduction
Jan 14	Fallacies and Language I
Jan 21	Fallacies and Language II
Jan 28	Fallacies and Language III
Feb 4	Truth Analysis I
Feb 11	Truth Analysis II
Feb 18	NO CLASS (Lunar New Year Holiday)
Feb 25	Induction I
March 4	Induction II
March 11	Deduction I
March 18	(to be confirmed and announced on *Blackboard*)
March 25	Deduction II
April 1	Essay Analysis Demonstration I
April 8	IN-CLASS TEST (See Assessment Below) with lecture afterwards (topic to be confirmed)
April 15	Essay Analysis Demonstration II Conclusion

GENERAL REFERENCES

The following is a PRELIMINARY listing of books you may wish to consult throughout the course. And all of them are available in our library. I must emphasize that they are NOT textbooks for this course. And more specific readings of chapter length will be assigned during the lectures and such instructions will be available on *Blackboard*.

Hurley, J. P. (2012) *A Concise Introduction to Logic*, 11th edition, Boston, MA: Wadsworth.

This is the edition I use commonly. It is a standard textbook good enough for a 2-term course. It contains detailed explanation of technical terms and rules, and lots of examples, exercises and suggested answers. You may not be able to get the most updated edition and earlier editions are perfectly acceptable. Some copies, probably older editions, are already reserved in our libraries. As a general reference, Hurley (2012) is certainly resourceful. Yet it is over 700 pages and covers much more than we will discuss. The following two are much shorter, thus more easily accessible.

Weston, A. (2009) *Rulebook for Arguments*, 4th/edn, Hackett Publishing Company. (early editions are also acceptable)

This one is non-technical and really short (under 100 pages) and I highly recommend it as a kind of introduction. While the next one is also short but targets more advanced readers.

Priest, G. (2001) *Logic: A Very Short Introduction*, New York: Oxford University Press.

You may also consult the followings that contain more detailed explanations, examples and exercises. When I don't specify the year of publication, it means that any edition will be all right.

- Copi, I. and Cohen, C. *Introduction to Logic*, Prentice Hall. (like Hurley (2012) also with lots of examples, exercises and suggested answers)

- Salmon, W. C. *Logic*, N.J.: Englewood Cliffs. (the digital version of the 1984 edition is available here: http://www.ditext.com/salmon/logic.html)（《邏輯》何秀煌譯，臺北：三民書局。）(this one is shorter than Hurley and Copi, but no exercise)

For Chinese readings, I recommend the following:

‧ 陳波（2002）《邏輯學是什麼》，北京：北京大學出版社。
‧ 方子華等（2005）《批判思考》，McGraw-Hill Education (Asia)。
‧ 李天命（1981）《語理分析的思考方法》，香港：青年書屋。
‧ 殷海光（2006）《思想的顏色》，香港：商務印書館。

SUGGESTED READINGS FOR SOME MAJOR TOPICS
The readings are optional. They are useful in the sense that they provide more detailed explanations, examples and exercises related to the lecture topics.

A. Meaning and Truth
1. 李天命（1981）《語理分析的思考方法》，第三篇〈語言的陷阱〉，頁 37-72。

2. Hurley (2012) *A Concise Introduction to Logic* 2.1 Varieties of Meanings and 2.2 The

Intension and Extension of Terms

3. Salmon (1984) *Logic,* Section 4 "Logic and language," especially chs. 31 "Use and Mention," 32 "Definitions," 33 "Analytic, Synthetic, and Contradictory Statements," and 35 "Ambiguity and Equivocation"
(NOTE: this work is available on the Internet, see above)

B. Arguments

1. 陳波（2002）《邏輯學是什麼》，第六章〈歸納邏輯〉，頁 162-200。

2. Hurley (2012) *A Concise Introduction to Logic* 1.1 Arguments, Premises and Conclusions, 1.2 Recognizing Arguments, 1.3 Deduction and Induction and 1.4 Validity, Truth, Soundness, Strength, Cogency

3. Salmon (1984) *Logic* Ch. 4 "Deductive and Inductive Arguments," Ch. 19 "Inductive Correctness," Ch. 20 "Induction by Enumeration," and Ch. 28 "Mill's Methods"

D. Fallacy Analysis

1. 楊國榮：〈謬誤〉，收於方子華等（2005）《批判思考》第四章，頁 57-84。

2. Weston, A. (2009) *Rulebook for Arguments*, 4th/edn, Appendix I "Some Common Fallacies," pp. 73-9.

3. Hurley (2012) *A Concise Introduction to Logic* Chapter 3 "Informal Fallacies"

I will also assign more readings upon specific topics and such instructions will be available on *Blackboard*. Moreover, you are most welcome to have a word with me anytime if you want to explore further than what I have suggested. And you could contact me via email (see above) or in person (preferably with an appointment first).

ASSESSMENT METHODS AND EXPLANATION (to be revised when term begins)

Type of assessment	Score	
In-class Test	35	(to be held on April 8 in class, starts by 16:30)
Final Exam	65	(centralized examination)
Total	100	

1. There will be no make-up test or exam for students who miss any of these assessments.

2. If the day of in-class test is affected by bad weather or accidents, this test will be POSTPONED to the following week, that is April 15, location and time remain unchanged.

SOME EXPLANATION ON THE ASSESSMENT METHODS:

Note: the following details are preliminary and may be changed when term begins.

- In-class test consists of multiple choice questions, true/false questions and problem solving short questions (not essay type). The test assesses chiefly the students' understanding of basic concepts, principles and other essential elements of critical thinking, as well as to a lesser extent their capability to apply the skills learnt in sections 2 and 3 of the syllabus in solving logical problems. Thus, in-class test relates chiefly to Learning Outcomes 1, 2 and 3.

- Final exam consists of a set of related short questions in argument construction, argument examination, fallacy analysis and/or meaning analysis, with respect to a given article (usually less than three pages long). The questions here aim at assessing the students' combined capabilities learned in sections 2, 3 and 4 of the syllabus. Thus, the final exam relates chiefly to all the Learning Outcomes.

- The grading for the final exam takes the following three critical factors into consideration:
  a. whether the strongest argument, not just any argument, is constructed with respect to the given information,
  b. how relevant concepts or principles, not irrelevant or inappropriate ones, are chosen in analyzing the constructed argument, and
  c. whether fallacy analysis or meaning analysis are done in the proper manner, not just brandishing the labels without explanation.
  All the aforesaid skills, together with the common mistakes or inadequacies in applying such skills, will be taught and demonstrated in the lectures, so attendance is of utmost importance.

- Both in-class test and final exam are conducted in English and closed-books. For the final exam ONLY, students are allowed to bring an A4 sized cheat-sheet (both sides, hand-written or print).

ACADEMIC HONESTY AND PLAGIARISM

Although no assignment in essay form is required in this course, I would still like to draw your attention to the University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at http://www.cuhk.edu.hk/policy/academichonesty/