Contact details

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Course overview :

本科提供基本的邏輯學訓練，培養學生的邏輯思辨及提升其分析和評鑑各類論證的能力。除了邏輯學的基本概念外（例如：理由、涵蘊、對確、謬誤等），本科主要教授演繹推論和歸納推論的邏輯原則及其應用的方法，並討論非形式邏輯的推理原則。

Learning outcomes

1. Demonstrate critical skills and critical disposition.
2. Translating arguments in ordinary language into symbolic argument forms.
3. Identify, classify, and assess arguments in various contexts.
4. Recognizing common valid argument forms
5. Identify and analyze fallacies.

Topics：

1. 邏輯與批判思考的關係

   甲、邏輯研究的對象和目的
   乙、思考：甚麼是思考? 思考如何發生?
   　　　--- 主意，意念，
   　　　--- 區分，範疇，
   　　　--- 概念，推理
   丙、如何把握抽象的思考
   丁、思考必須透過語言的媒介
   戊、符號的功能 與 意義問題；語言是一種符號系統
   己、意義問題與社會約定俗成

2. 意義 與 理解：意義的傳遞與掌握
   甲、概念的意指：概念構成；意義(meaning) 與 指涉(reference)
   乙、字詞的「提指」(mention) 與 「使用」(use)
   丙、定義的分析：目的 / 方法 / 問題
   丁、語理分析：準確與含糊

3. 語句、述句(statement) / 命題(proposition)、論證(argument)
   甲、何謂命題、論證？ --- 推理的語文表達方式
   乙、語句分析 --- 語句的不同性質
   丙、語句性質與真假值問題

4. 推理活動的方式(way of reasoning)
   甲、甚麼是論證？論證的結構 與 作用
   乙、演繹式(deductive) ------ 句內分析
           --- 定言三段論 (categorical syllogism)
           --- 范氏圖(Venn diagram) / 規則法
   丙、命題邏輯(propositional logic) ------ 句外分析
   丁、條件句(conditional sentence)；條件組合的推理形式
   戊、歸納式(inductive)論證
   己、類比式(analogical)論證
   庚、科學的推論方式

5. 論證之謬誤(fallacies)剖析
   甲、形式謬誤(formal fallacy)
   乙、非形式謬誤(informal fallacy)
   丙、影響日常推理的偏見(bias)

Learning activities and workload ：

In-class:

1. Lecture: 2 hours each week.

2. attend *all* lectures and participate in discussion.

3. one term test (to be announced in the course webpage)

Out-of-class:

1. Reading: 2 – 3 hours each week on lecture material and the required readings.

2. Homework: 2 hours each week (it will be uploaded in the course webpage)

   Weeks 3 – 4: exercises for topic (2)

   Weeks 6 – 9: exercises for topic (3), (4)

   Weeks 11 – 12: exercises for topic (4)

   Weeks 12 – 13: exercises for topic (5)

Assessment scheme ：

Task nature	*Weight*
Term Test	40%

Final Examination (Centralized Examination)	60%

Remarks : Term test and Final Examination format will be announced and indicated in the course Blackboard webpage.

Course schedule :

Week	*Topic*	*Reading Requirements*
1	1. 邏輯與批判思考的關係	閱讀： 1 . Howard Kahane, *Logic and contemporary rhetoric : the use of reason in everyday life* . Chapter 1 & 7. 2 . 何秀煌：《邏輯：邏輯的性質與邏輯的方法導論》。第 2 – 3 章.
2	2. 意義 與 理解：意義的傳遞與掌握	閱讀： 何秀煌:《邏輯》. 第 3 章, 12-13 節; 第 2 章, 6-8 節
3	2.1 定義的分析	1. Patrick Shaws, *Logic and its Limit*. Chapter 7, 8. 2. Copi, *Introduction to Logic*. Chapter 3
4	2.2 語理分析：準確與含糊	1. 李天命: 《語理分析》. 第 II 篇 (1-6 節)；《思考藝術 》– 主題篇- 第 I 部分: 語理分析 2. Copi, *Introduction to Logic*. Chapter 2-3 3. Govier, *A Practical Study of Argument*. Chapter 4. 4. Bennett, *Logic made easy*. Chapter 12.
5–6	3. 語 句 、 述 句 (statement) 、 命 題 (proposition)、論證(argument)	閱讀： 1. 李天命: 《語理分析》. 第 III 篇 (1-3 節); 2. 《思考藝術 》 – 主題篇- 思考與 心魔: 第 II 類語害 –言辭空廢 3. 何秀煌: 《邏輯》. 第 1 章, 第 3 節; 可以進一步參考: 第 4 章, 第 18 節

	4. 推理活動的方式	
7-8	4.1 甚麼是論證？論證的結構 與 作用	閱讀： 1. Govier, *A Practical Study of Argument*. Chapter 1: what is an argument; chapter 4: good arguments 2. Fisher, *The Logic of Real Arguments*. Chapter 2: a general method of argument analysis 3. Copi, *Introduction to Logic*. Chapter 13
9-10	4.2 演繹式 – 定言三段論	1. Patrick J. Hurley, *A concise introduction to logic*. Chapter 4-5, p.197ff. 2. Copi, *Introduction to Logic*. Chapter 5-6
11 / 12	學期測驗 – 準確日期/時間會在課程網頁上正式公佈	當天出席並參與考試
11 - 12	4.3 命題邏輯	1. Patrick J. Hurley, *A concise introduction to logic*. Chapter 6, p.310ff.
12 - 13	5. 謬誤剖析 - 非形式謬誤(informal fallacy)	1. Patrick J. Hurley, *A concise introduction to logic*. Chapter 3, p.119ff. 2. Howard Kahane, *Logic and contemporary rhetoric : the use of reason in everyday life* . Chapter 3 - 6.

Recommended learning resources

中文作品：

何秀煌：《邏輯：邏輯的性質與邏輯的方法導論》。(臺北：臺灣東華書局, 1987)
陳波：《邏輯學是什麼》。(北京：北京大學, 2002)
陳文江, 秦美珠：《智者的邏輯》。(臺北：究竟出版社, 2004)
李天命：《語理分析的思考方法》。(香港：青年書屋, 1981)
李天命：《李天命的思考藝術》。(香港：明窗, 2002)

英文作品：

Deborah J. Bennett, *Logic Made Easy.*. New York: W.W. Norton, 2004.
Irving M. Copi and Carl Cohen, *Introduction to Logic*, 13th ed. Upper Saddle River, N.J. :

Pearson/Prentice Hall, 2009.

Alec Fisher, *Critical Thinking: an introduction*. Cambridge: Cambridge Univ. Press, 2001.

Trudy Govier,   *A Practical Study of Argument*. (7th ed.) Belmont, CA : Cengage Learning, 2010.

Patrick J. Hurley, *A concise introduction to logic*. 11th Ed. Belmont, Calif.: Wadsworth, 2012.

William Hughes, *Critical thinking : an introduction to the basic skills*. Peterborough : Broadview Press, 2000.

Howard Kahane, *Logic and contemporary rhetoric : the use of reason in everyday life*. 11th Ed. Belmont, Calif. : Wadsworth Pub., 2010.

Patrick Shaw, *Logic and its limit*. Oxford: Oxford Univ. Press, 1998.

Feedback for evaluation

1. As with all courses in general education, students evaluate the course through a survey and written comments at the end of the term as well as via regular feedback between teacher and students.
2. Students are welcome to give feedback on the course at any time. They can do so by communication to teacher in class, or by email.

Details of course website

We use Webct for this course. Relevant announcements and course materials, including lecture power points, notes, assignments, will be posted regularly on the website.

Academic honesty and plagiarism

Attention is drawn to 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/

With each assignment, students will be required to submit a signed declaration that they are aware of these policies, regulations, guidelines and procedures. For group projects, all students of the same group should be asked to sign the declaration.

For assignments in the form of a computer-generated document that is principally text-based and submitted via VeriGuide, the statement, in the form of a receipt, will be issued by the system upon students' uploading of the soft copy of the assignment. Assignments without the receipt will not be graded by teachers. Only the final version of the assignment should be submitted via VeriGuide.