The Chinese University of Hong Kong
UGED1810 Critical Thinking 批判思考
Course Outline

Course overview:

The 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 the use of language to influence thought; how to identify common cognitive bias, 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:

1. Acquire analytic skills and a critical disposition.
2. Demonstrate familiarity with major proof-theoretic methods in propositional logic.
3. Translate arguments in ordinary language into symbolic argument forms.
4. Recognize common valid argument forms.
5. Identify, classify, and assess arguments in various contexts.
6. Understand Scientific Reasoning
7. Identify and analyze informal fallacies.
8. Identify and analyze cognitive bias.

Topic:

1. Linguistic-Conceptual Analysis
2. Basic Concepts of Logic and Argumentation
3. Propositional Logic: Truth table
4. Hypothetical Syllogisms
5. Categorical Syllogisms
6. Inductive Reasoning
7. Scientific Reasoning
8. Informal Fallacies
9. Cognitive Bias

Assessment:

Task nature	**Description**	**Weight**
Class participation	Class discussion	10%
Mid-term quiz	In class quiz	30%
Final exam	In class exam	40%
Written assignment	Group assignment on Linguistic-Conceptual Analysis and Informal Fallacies	20%

Details of course website:

We use Blackboard Learn for this course. Lecture notes and information on assignments will be posted on the website.

Course schedule:

Week	Date	Topic	Reading
1	May 12	Introduction	*An Introduction to Critical Thinking and Creativity*, Ch.1.
1	May 14	Linguistic-Conceptual Analysis	《思方導航》, 第一篇
2	May 19	Linguistic-Conceptual Analysis/ Basic Concepts of Logic and Argumentation	*A Concise Introduction to Logic*, Ch. 1
2	May 21	Basic Concepts of Logic and Argumentation	*A Concise Introduction to Logic*, Ch. 1
3	May 26	Propositional Logic: Truth table	*A Concise Introduction to Logic*, Ch. 6
3	May 28	Hypothetical Syllogisms	*A rule book for argument*, Ch.6
4	Jun 2	Categorical Syllogisms	*A Concise Introduction to Logic*, Ch.4-5
4	Jun 4	**Mid-term quiz**	
5	Jun 9	Inductive Reasoning	*A Concise Introduction to Logic*, Ch.13
5	Jun 11	Scientific Reasoning	*How to Think About Weird Things*, Ch. 6
6	Jun 16	Informal Fallacies	《思方導航》, 第五篇
6	Jun 18	Informal Fallacies	《思方導航》, 第五篇
7	Jun 23	Cognitive Bias	*Thinking, Fast and Slow*, Part 2.
7	Jun 25	**Final exam**	
8	Jun 30	Make up class (*if applicable*) Deadline of group assignment	

Recommended learning resources: (# main reference)

Critical Thinking in general :

Joe Y. F. Lau, *An Introduction to Critical Thinking and Creativity : Think More, Think Better*, Wiley publication, 2011.#

Brooke Noel Moore and Richard Parker, *Critical Thinking*, 10th ed., McGraw Hill, 2012

Theodore Schick and Lewis Vaughn, *How to Think About Weird Things: Critical Thinking for a New Age*, 6th ed., McGraw-Hill, 2010.

Tracy Bowell and Gary Kemp, *Critical Thinking: a Concise Guide*, Routledge, 2010.

Linguistic-Conceptual Analysis:

貝剛毅,《思方導航》，匯智出版有限公司, 2011.#

李天命,《語理分析的思考方法》，青年書屋，1999

李天命,《李天命的思考藝術》(終定本), 明報出版社，1998

Formal Logic:
Patrick Hurley, *A Concise Introduction to Logic*, 10th ed., Wadsworth, 2008.#
Anthony Weston, *A Rulebook for Arguments*, 4th ed., Hackett Publishing Company, 2009.
Irving Copi and Carl Cohen, *Introduction to Logic*, 11th ed., Prentice Hall, 1998.
Merrie Bergmann and James Moore, *The Logic Book*, 4th ed., McGraw-Hill, 1998.
Wesley Salmon, *Logic*, Prentice Hall, 1963.
林正弘,《邏輯》，三民書局，1994。

Informal Logic:
Douglas N. Walton, *Informal Logic*, Cambridge University Press, 1989.#
Alec Fisher, *The Logic of Real Arguments*, Cambridge University Press, 1988.
Douglas N. Walton, *The New Dialectic: Conversational Contexts of Argument*, University of Toronto Press, 1988.
Trudy Govier, *A Practical Study of Argument*, 5th ed., Wadsworth Thomson Learning, 2001.
貝剛毅,《思方導航》，匯智出版有限公司, 2011.#
李天命,《哲道行者》，明報出版社，2005

Cognitive Bias:
Daniel Kahneman, *Thinking, Fast and Slow*, Penguin Books, 2012,#
David Hand, *The Improbability Principle*, Bantam Press, 2014
魯爾夫.杜伯里著,王榮輝譯,《思考的藝術》，商周出版, 2012
魯爾夫.杜伯里著,王榮輝譯,《行為的藝術》，商周出版, 2012

Feedback for evaluation:

1. Students are strongly encouraged to provide feedback on the course via email or meetings with lecturer.
2. 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. This information is highly valued and is used to revise teaching methods, tasks, and content.

Contact :

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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.