Lingnan University
Department of Philosophy

Course Title	:	Critical Thinking: Analysis and Argumentation (慎思明辨:分析與論證)
Course Code	:	CCC8011
Recommended Study Year	:	1st Year
No. of Credits/Term	:	3
Mode of Tuition	:	Sectional
Class Contact Hours	:	3 hours per week
Category in Core Curriculum	:	Common Core
Prerequisite(s)	:	N/A
Co-requisite(s)	:	N/A
Exclusion(s)	:	N/A
Exemption Requirement(s)	:	N/A

Brief Course Description

The primary aim of this course is to teach first-year students the basic but crucial skills of analyzing problems, evaluating inferences, and presenting arguments for or against claims or decisions. Students will acquire these skills by learning about the basic concepts and methods of critical thinking, and by working through problem solving exercises requiring them to employ these concepts and methods. Students will further develop these skills by producing extended arguments defending what they take to be the correct responses to accessible but challenging real issues and problems. The course also aspires to instill in students an open and inquiring attitude, so that students are more willing to look for reasons for and against their views, and more willing to change their views in the face of evidence. Hence, it is hoped that students will develop a habit of reasoning carefully upon completion of this course.

Aims

This course aims to: (a) increase students' ability to analyze, construct, evaluate, and present arguments; (b) improve students' ability to avoid mistakes in reasoning; and (c) instill in students an open and inquiring attitude.

Learning Outcomes

Students are expected to demonstrate the following:

L1) The ability to successfully employ a number of central concepts of critical thinking and argumentation;
L2) The ability to recognize and clearly present arguments in ordinary language, and to analyze the structure of these arguments;
L3) The ability to establish the deductive validity or invalidity of an argument, to recognize and criticize the flaws of a weak argument, and to develop objections;
L4) The ability to evaluate the reasons for and against positions in sophisticated debates, and to construct clear and persuasive arguments that defend the student's view about such debates;
L5) The ability to construct arguments cogently in speech and in ordinary English, including in the form of an argumentative essay

Indicative Content
The course will be divided into two parts: part A and part B. Part A will cover the following topics:

Topic 1) The meaning and significance of critical thinking, and basic concepts of reasoning: arguments, counterexamples, consistency, possible situations, necessary and sufficient conditions, equivalence, how arguments support conclusions, making generalizations, and the evidence needed to support generalizations.

Topic 2) Abstract reasoning: syllogisms, basic logical inferences, basic methods for determining whether premises support a conclusion, important vocabulary for arguments, and abstract argumentation.

Topic 3) Presenting, analysing, and evaluating arguments: presenting arguments in standard form, presenting arguments using argument maps, determining the structure and components of arguments (premises, conclusions, objections, hidden components), and criticising arguments (finding counterexamples, putting forward objections, detecting circularity and other fallacies in reasoning)

Further topics might be covered, depending on time constraints and the priorities of the particular class. Possible topics include: i) further treatment of fallacies, including fallacies involving cognitive biases, ii) critical thinking and the media, iii) advanced argument mapping (involving the use of argument mapping software), iv) causation and scientific reasoning, v) reasoning and decision making under uncertainty, and vi) more advanced abstract reasoning.

Part B of the course will cover several accessible but sophisticated real debates. These may include debates in ethics, debates about science, and debates that are currently topical. As well as discussing these debates in class, students will develop their own arguments defending what they think is the right response to the questions involved in these debates. This work will include a short argumentative essay on one of these debates. It may also include students developing arguments in other argumentative formats, such as in the form of an argument map, in the form of a PowerPoint presentation, or in the form of a class debate. Examples of debates that might be covered include the following questions. What is the difference between science and non-science? Is there a scientific method, and, if so, does it work? Are human lives more valuable than the lives of other animals? Is abortion morally wrong? Is euthanasia morally wrong? How should we respond to global poverty? Is it ever right to kill a few to save many?

Teaching Method
Instructors will provide accessible lectures and ample opportunities for students to apply the methods and strategies under discussion in concrete settings. Students will be expected to engage in a number of activities, such as problem solving exercises, class discussions and debates, assignments and tests, and argumentative essay writing.

Measurement of Learning Outcomes
Students' progress towards the learning outcomes will be measured by the performance of students in:

- class discussion and/or class presentations (L1-5)
- written work involving short answer questions and problems, such as tests, exams, assignments, and quizzes (L1-5)
- closed-book tests and exams (L1-5).

Assessment
10% Class participation
20% Argumentative essay
40% In-term assessment (possible forms include take-home assignments, quizzes, in-class tests, in-class debates and class presentations)
30% Final examination

Required Readings
Joe Y. F. Lau, *An Introduction to Critical Thinking and Creativity*, John Wiley & Sons, 2011.

Supplementary Readings

Berg, T. T., Van Gelder, T., Patterson, F. & Teppema, S., Critical Thinking: *Reasoning and Communicating with Rationale*^{TM}, CreateSpace Independent Publishing Platform, 2013

Fisher, A. *Critical Thinking: An Introduction*, 2nd ed., Cambridge University Press, 2011.

Hacking, I. *An Introduction to Probability and Inductive Logic*, Cambridge University Press, 2001.

Nisbett, R. Mindware: *Tools for Smart Thinking*. Farrar, Straus and Giroux, 2015.

Rachels, J, *The Right Thing to Do*, 7th ed., McGraw-Hill Education,

2014. Sainsbury, R. M. *Paradoxes*. Cambridge University Press, 2009.

Salmon, M. H. *Introduction to Logic and Critical Thinking*, 6th ed., Wadsworth,

2013. Singer, Peter, ed. *A Companion to Ethics*. Oxford: Blackwell, 1991.

Skyrms, B. *Choice and Chance: An Introduction to Inductive Logic*. Wadsworth,

2000. Smilansky, S. *10 Moral Paradoxes*. Wiley-Blackwell, 2007.

Walton, D.N. *Informal Logic*, Cambridge University Press, 1989.

Important Notes:
(1) Students are expected to spend a total of 9 hours (i.e. 3 hours of class contact and 6 hours of personal study) per week to achieve the course learning outcomes.
(2) Students shall be aware of the University regulations about dishonest practice in course work, tests and examinations, and the possible consequences as stipulated in the Regulations Governing University Examinations and Course Work. In particular, plagiarism, being a kind of dishonest practice, is "the presentation of another person's work without proper acknowledgement of the source, including exact phrases, or summarised ideas, or even footnotes/citations, whether protected by copyright or not, as the student's own work". Students are required to strictly follow university regulations governing academic integrity and honesty.
(3) Students are required to submit writing assignment(s) using Turnitin.
(4) To enhance students' understanding of plagiarism, a mini-course "Online Tutorial on Plagiarism Awareness" is available on https://pla.ln.edu.hk/.