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

30% In-term assessment (possible forms include take-home assignments, quizzes, in-class tests, and class presentations)

40% 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.

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Rubric for Evaluating Class Participation and/or In-class Exercises

For evaluating participation in class discussions:

Excellent (90-100%)	Good (80-89%)	Fair (70-79%)	Poor (60-69%)	Unsatisfactory (0-59%)
Attempts frequently to answer or raise questions; comments are mostly cogent and relevant; full attendance (except absence with prior notice and valid reasons.)	Attempts frequently to answer or raise questions; comments are often cogent and relevant; almost full attendance.	Attempts sometimes to answer or raise questions; comments are sometimes cogent and relevant; skips quite a few classes without notice.	Seldom attempts to answer or raise questions, but can sometimes offer relevant answers when asked; skips many classes.	Almost never makes cogent or relevant comment, even when asked; skips most classes.

For grading a question in an in-class quiz/exercise:

Perfect (100%)	Good (75%)	Fair (50%)	Zero (0%)
Provides an accurate and clear answer to the question.	Provides a largely correct or reasonable answer that is not very clear or accurate.	Provides an answer with some reasonable elements.	Provides no answer or an answer that is entirely off the point.

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Rubric for Grading the Argumentative Essay

	Excellent (90-100%)	Good (80-89%)	Fair (70-79%)	Poor (60-69%)	Unsatisfactory (0-59%)
Thesis statement (Weight: 20%)	The thesis is clearly stated and is properly situated in an accurately described context.	The thesis statement is largely clear, and the description of the relevant context is largely accurate.	The thesis statement is reasonably clear, but the relevant context is not supplied accurately or sufficiently.	The thesis statement is ambiguous or vague; little or no context is provided.	No discernible thesis statement.
Argumentation (Weight: 40%)	Presents compelling arguments, shows understanding of important objections, and offers novel arguments or ideas.	Presents compelling arguments and shows understanding of important objections. Novel aspects are less compelling or absent.	Presents arguments that successfully motivate the main claims, but details are overlooked, and objections are not handled as well.	Arguments are often vague and impressionistic, or supported with dubious claims or fallacious modes of reasoning.	No discernible arguments.
Organization (Weight: 20%)	Ideas are clearly arranged to allow easy understanding of their relations.	As excellent, but with slightly more mistakes in arrangement of ideas.	Basic structure is good, but sometimes arrangement of ideas is confusing.	Essay seems to switch topics at points or is difficult to follow due to unclear structure.	Lack of organizational structure/ Largely incomplete.
Writing (Weight: 20%)	Clear, engaging writing, with almost no mistakes in grammar or spelling.	Occasional mistakes in grammar or spelling which do not interfere with comprehension.	Substantial mistakes that sometimes make comprehension difficult.	Significant portions cannot be accurately assessed because of problems with the writing.	The content is difficult or impossible to evaluate.

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Rubric for Grading a Presentation

	Excellent (90-100%)	Good (80-89%)	Fair (70-79%)	Poor (60-69%)	Unsatisfactory (0-59%)
Communication (Weight: 25%)	Excellent presentation; closely engages audience; persuasive delivery.	Generally holds attention; generally good delivery.	Delivery is fair, somewhat engaging; makes an attempt to command attention of class.	Delivery is apparently detached; fails to command attention of class	Little or no attempt to communicate with the class; non-existent presentation skills
Organization (Weight: 25%)	Excellent structure; transitioning from topic to topic is clear and logical	Generally good structure; transitioning from topic to topic is mostly clear	Generally acceptable; some organization skills demonstrated	Lack of organization; jumps from topic to topic without proper signals	Ideas are apparently randomly expressed
Argumentation and use of references (Weight: 25%)	Reasoning is almost impeccable; excellent usage and accreditation of supporting evidence	Reasoning is strong; supporting evidence is demonstrated clearly	Reasoning is fair; some usage of supporting evidence i	Contains major fallacies in reasoning; scant usage of supporting evidence	Little or no demonstration of reasoning skills
Content (Weight: 25%)	Content is rich and novel; original ideas expressed; strong take home message	Content is extensive; take home message is clear	Content is, present; fair use of materials. Take home message somewhat discernable	Content is weak, message largely non-existent	Very little content, or there is plagiarism.

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Rubric for Grading an Examination/Test/Homework

For questions with clear-cut answers:

Perfect (100%)	Partial Credit (20-80%)	Zero (0%)
The concluding answer is correct, with a clear, sound, and sufficient argument or explanation, if needed.	The concluding answer is correct, but the argument or explanation is unclear or insufficient, or the concluding answer is incorrect, but some intermediate steps are correct.	Neither the concluding answer nor anything in the argument or explanation is correct.

For essay questions or open-ended questions:

	Excellent (90-100%)	Good (80-89%)	Fair (70-79%)	Poor (60-69%)	Unsatisfactory (0-59%)
Knowledge (Weight: 70%)	Demonstrates knowledge of all the relevant points, with a clear and accurate exposition.	Demonstrates knowledge of most relevant points, with a largely clear and accurate exposition.	Demonstrates knowledge of most relevant points, but the exposition is unclear or inaccurate.	Demonstrates only a limited understanding of the basic points.	Demonstrates very little understanding of even the basic points.
Argumentation (Weight: 30%)	Presents novel, compelling arguments with enough details.	Presents compelling arguments, with less novelty or some gaps.	Presents reasonable arguments that are not novel or very compelling.	Attempts to express an argument, but the result is unclear or messy.	Makes little or no attempt to present arguments.