The Chinese University of Hong Kong
Department of Philosophy

UGED1111A Logic 邏輯
Course Outline

Course time & location: Thursday 13:30-15:15, LSK 515
Instructor: RIMELL, Nicholas K

Course overview

This course is designed to develop the student's ability to analyze and critically evaluate arguments from a logical point of view. It will provide students with a basic understanding of such concepts as reasons, implication, validity, and fallacies. Students will learn the logical principles of deductive and inductive inferences and the techniques of applying them for determining the validity of arguments. Elements of good reasoning from an informal perspective will also be covered.

Learning outcomes

1. Acquire analytic skills and a critical disposition.

2. Grasp the central concepts in classical logic.

3. Demonstrate familiarity with major proof-theoretic methods.

4. Translate arguments in ordinary language into symbolic argument forms.

5. Recognize common valid argument forms.

6. Identify, classify, and assess arguments in various contexts.

7. Identify and analyze informal fallacies.

Topics

1. Logical thinking

2. Basic concepts

3. Informal fallacies

4. Deductive and inductive reasoning

5. Categorical syllogisms

6. Symbolic language and truth tables

7. Natural Deduction in Propositional Logic

Learning activities and workload

In-class:

1. Extended discussion of lecture issues / student questions

2. Review of practice problems

3. Additional exercises and group activities

Out-of-class:

1. Reading: 3–4 hours each week on lecture material.

2. Lecture viewing: about 2 hours per week

Assessment scheme

Task nature	Description	Weight
Unit 1 Test	Covers basic concepts and informal reasoning	30%
Unit 2 Test	Covers categorical propositions and syllogisms	30%
Unit 3 Test	Covers propositional logic	30%
Participation	Based on preparedness for class, engagement in discussion, work on class activities, work on practice exercises, etc.	10%

Remarks:

1. In this course, we're going to employ the ***flipped classroom*** method. I will post lecture videos to Blackboard. Before class, students should read the weekly material and watch the weekly lecture video. They should then come to class prepared to discuss the material, to ask questions, to work on practice problems, to engage in group activities, and so forth.

2. There will not be new lectures to watch on the weeks of the unit tests.

Required reading

H&W: Hurley, Patrick J., & Watson, Lori (2018). *A Concise Introduction to Logic*, 13th ed. Boston, MA: Cengage Learning. **(Textbook. This book will be made available at the CUHK bookstore.)**

Additional (recommended) learning resources

Barker-Plummer, Dave; Barwise, Jon; & Etchemendy, John (1999). *Language, Proof, and Logic*. New York and London: Seven Bridges Press.

Bostock, David (1997). *Intermediate Logic*. Oxford: Clarendon Press.

Copi, Irving; Cohen, Carl; & Rodich, Victor (2019). *Introduction to Logic*, 15th ed. New York: Routledge.

Lau, Joe Y. F. (2011). *An Introduction to Critical Thinking and Creativity: Think More, Think Better*. Hoboken, New Jersey: Wiley.

Restall, Greg (2006). *Logic*. Montreal: McGill's University Press.

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.

Course schedule*

Week	Topic	Reading
1. 8 Jan	Introduction: What is an argument?	*H&W*, §1.1-§1.2 (pp. 1-25)
2. 15 Jan	Deduction, induction, and how to evaluate an argument	*H&W*, §1.3-§1.4, §1.5 pp. 59-62 only, & §1.6 pp. 67-69 only (pp. 33-54, 59-62, 67-69)
3. 22 Jan	Informal fallacies	*H&W*, §3.1-§3.4 (pp. 125-179)
4. 29 Jan	**Test on Unit 1:** Basic concepts and informal reasoning	No new reading

5. 5 Feb	Categorical propositions: The modern standpoint	*H&W*, §4.1-§4.4 (pp. 206-237)
6. No class	**Lunar New Year**	
7. 19 Feb	Categorical propositions: The traditional standpoint	*H&W*, §4.5-§4.6 (pp. 240-259)
8. 26 Feb	Categorical syllogisms	*H&W*, §5.1-§5.2 (pp. 274-295)
9. No class	**Reading week**	
10. 11 March	**Test on Unit 2:** Categorical propositions and syllogisms	No new reading
11. 18 March	Propositional logic: Introduction	*H&W*, §6.1-§6.2 (pp. 327-350)
12. 25 March	Propositional logic: Truth-tables	*H&W*, §6.3-§6.6 (pp. 354-393)
13. No class	**Easter Monday**	
14. 8 April	Natural deduction in propositional logic: Introduction	*H&W*, §7.1-§7.4 (pp. 403-445)
15. 15 April	Natural deduction in propositional logic: Conditional and indirect proof	*H&W*, §7.5-§7.7 (pp. 453-467)
16. 22 April** (Make-up day)	**Test on Unit 3:** Propositional logic	No new reading

*This schedule is tentative. We will discuss the details during the first lecture.

**In order to have 13 lectures, we'll use the first make-up day, Mon 22 April. Class will be at the normal time.

Contact details

Lecturer	
Name:	RIMELL, Nicholas K
Office Location:	Room 416, FKH
Telephone:	3943 7139
Email:	nicholaskrimell@cuhk.edu.hk (preferred)

Details of course website

We will use Blackboard for this course.

Grade Descriptor

For recommended grading scheme, please refer to:
http://phil.arts.cuhk.edu.hk/~phidept/UG/Grade_descriptors.pdf

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.