開課班級: 四財金學士學程一A **授課老師: 張智皓** **學分數: 2**

課程大綱:

本門課將邏輯知識區分為兩大部分：（一）邏輯語言；（二）邏輯證明。在期中考之前的課程，我們將授課目標放在與（一）相關的邏輯知識上，期望讓同學認識邏輯語言如何與自然語言不同，學習邏輯語言的語法結構以及語意特徵，並進而認識邏輯推論的各種類型。而在期中考之後，我們將重點放在與（二）相關的邏輯知識上，讓同學熟悉邏輯證明規則，以及實際操作邏輯證明，進而學習抽象推理能力。本學期將會安排期中與期末兩次紙筆測驗，目的在於檢視同學對課程內容的接受狀況，而在兩次紙筆測驗的前一週，我們也會進行課前複習，讓同學可以回憶課程內容，以及針對較不熟系的課程內容提供講解與說明。

outline:

This course divides logical knowledge into two main parts: (1) Logical Language; (2) Logical Proof. In the lessons before the midterm exam, our teaching objective is focused on the logical knowledge related to (1), with the expectation of helping students understand how logical language differs from natural language. Students will learn the grammatical structure and semantic features of logical language, and then recognize various types of logical inferences. After the midterm exam, our focus will shift to the logical knowledge related to (2), acquainting students with logical proof rules and practical operations of logical proofs, thereby learning abstract reasoning skills. This semester, we will arrange two written tests, midterm and final, to examine students' reception of the course content. One week before each test, we will also conduct a pre-test review to help students recall the course content and provide explanations and clarifications for less familiar topics.

教學型態:

課堂教學+小組討論

成績考核方式:

平時成績:30%
期中考:30%
期末考:30%
其它:出缺勤Attendance 10%%

本科目教學目標:

The main function of logic lies in distinguishing between good and bad arguments. Regardless of the context, we all need to rely on logical abilities for reasoning. The goal of this course is to cultivate students' understanding and possession of basic logical concepts, differentiate between natural and formal languages, and recognize the fundamental characteristics of good and bad inferences. This will enhance and deepen critical thinking skills. Moreover, through this course, once students grasp the basic knowledge of logic, they will be capable of further pursuing and mastering advanced courses related to logic in the future.

參考書目:

Hausman,A., Kahane, H, & Tidman, P., 2013, Logic and Philosophy: A Modern Introduction, New York: Wadsworth Publishing. Magnus, P. D., 2017, Forallx: An Introduction to Formal Logic. (https://open.umn.edu/opentextbooks/textbooks/54) **彭孟堯，2012，《基礎邏輯》，學富文化。**

課程進度表：

週次	起訖月日	授課單元(內容)	備註
第1週	9.08~9.15	Syllabus and course introduction	8日正式上課。8~12日課程加退選，轉學(系)生、復學生及延修生選課，雙主修、輔系申請，12日申辦抵免學分截止日
第2週	9.15~9.22	Argument, Propositions, and Formal Features	
第3週	9.22~9.29	Inconsistency, Contradiction, and the Traditional logic	28日(日)孔子誕辰紀念日/教師節(放假),29日(一)補假
第4週	9.29~10.06	Symbolic sentence and Logical Connectives	29日成績優異提前畢業者提出申請截止日
第5週	10.06~10.13	Computing Truth-Values	6日(一)中秋節(放假)，10日(五)國慶日(放假)
第6週	10.13~10.20	The type of logical sentence	14日學生宿舍安全輔導暨複合式防災疏散演練。18日多益測驗
第7週	10.20~10.27	The validity test	24日(五)補假，25日(六)光復暨古寧頭大捷日(放假)。
第8週	10.27~11.03	Pre-exam Review	30日校課程委員會
第9週	11.03~11.10	Mid-term exam	3~9日期中考試
第10週	11.10~11.17	Valid Argument Forms of Inference (1)	13日教務會議,16日教師期中成績上網登錄截止日
第11週	11.17~11.24	Valid Argument Forms of Inference (2)	
第12週	11.24~12.01	Exercise: Inference rules	24~28體育運動週。24日校園路跑。27日運動大會夜間開幕，28日運動大會活動，29日101週年校慶活動日，照常上班
第13週	12.01~12.08	Valid Equivalence Forms (1)	
第14週	12.08~12.15	Valid Equivalence Forms (2)	12日申請停修課程截止日
第15週	12.15~12.22	Exercise: Equivalence rules	
第16週	12.22~12.29	Conditional and Indirect Proofs	22日校務會議。25日行憲紀念日(放假)
第17週	12.29~1.05	Pre-exam Review	1日(四)開國紀念日(放假)
第18週	1.05~1.12	Final-exam	5~11日期末考試，10~11日學生退宿