

Course Title	LAH 313 Logic		Instructor(s)	Mirja Annalena Holst
			E-mail	
Class Style	Lecture		Office Hours	
Track	Global Liberal Arts		Mode of Instruction	Solo
Credits	2		Allocated Year	3
Active Learning	Category 3 (2, 3, 4) Category 4 (1, 2, 3, 4, 7, 8, 9, 10)		Compulsory or Elective	Elective
Course Overview	This course provides an introduction to logic, the systematic study of reasoning and argumentation. The primary aim of this course is to teach students basic but essential skills of analysing, evaluating, and constructing arguments, and to hone their ability to execute these skills in thinking and writing. Students will be equipped with the tools necessary for clear, coherent, and effective reasoning in both academic and professional contexts. The course improves students' skills in logic by making explicit the basics of reasoning and argumentation and by connecting them to various issues and situations in everyday life. We will discuss basic concepts in logic, essentials of propositional logic including translations into a formal language and truth tables, natural deduction in propositional logic, and common fallacies in reasoning.			
Course Objectives	The aim of this course is to enable students (1) to identify and analyse arguments, detect implicit premises, and reconstruct arguments, (2) to understand the basics of propositional logic including translations into a formal language, truth tables and natural deduction, (3) to detect common fallacies in reasoning, and (4) to present arguments clearly in speech and writing.			
Prerequisite				
Course Schedule	No	Contents	Homework	
	1	Introduction	course overview, syllabus	
	2	Basic Concepts: Arguments	reconstruct arguments	
	3	Basic Concepts: Deduction and Induction	identify valid arguments	
	4	Basic Concepts: Argument Analysis	construct argument maps	
	5	Propositional Logic: Symbols and Translations	practice translations	
	6	Propositional Logic: Truth Functions	practice drawing truth tables	
	7	Propositional Logic: Truth Tables for Propositions	test propositions for logical truth	
	8	Propositional Logic: Truth Tables for Arguments	test arguments for validity	
	9	Propositional Logic: Fallacies	identify fallacies	
	10	Midterm Exam	study for midterm exam	
	11	Natural Deduction in Propositional Logic: Rules for Implication	practice simple derivations	
	12	Natural Deduction in Propositional Logic: Rules for Replacement	practice simple derivations	
	13	Natural Deduction in Propositional Logic: Arguments	test arguments for validity	
	14	Natural Deduction in Propositional Logic: Logical Truths	test propositions for logical truth	
	15	Conclusion	course review, practice	
		Final Exam	study for final exam	
Grading	Participation: 10%, Quizzes: 20%, Midterm Exam: 30%, Final Exam: 40%			
Textbooks	All course materials, including texts, lecture slides, handouts, exercises, and sample solutions, will be available on the course webpage.			
References	Hurley, J. H. (2024). <i>A concise introduction to logic</i> . Cengage.			
NOTES	This syllabus is subject to change. Any possible changes will be notified to students.			