NORTHWESTERN POLYTECHNIC

DEPARTMENT Humanities and Social Sciences

COURSE OUTLINE - Winter 2025

PH1250(A3): Practical Logic - 3 (3-0-0) 45 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

INSTRUCTOR:	Hugh Hunter	PHONE:	(780) 539-2823
OFFICE:	C421	E-MAIL:	jhunter@nwpolytech.ca
OFFICE HOURS:	Wednesday from 1:00 to 2:00 PM, or by request		

CALENDAR DESCRIPTION: Practical logic is the study of critical thinking in everyday contexts. This class is foundational to all aspects of life, including our professional and personal lives. Without critical thinking people may not be able to differentiate between mere opinion and knowledge, which makes them susceptible to holding false beliefs without the means to make corrections. Critical thinking skills teach us how to identify mistakes in reasoning and how to correct these mistakes. This course teaches students the basic concepts of informal logic required for critical thinking. These concepts include the components of arguments, how to analyze logical inferences, and how to evaluate persuasive language as it is often presented in politics, news, social media, business, and even around the dinner table. In addition, students will learn how to identify logical fallacies, how to recognize good evidence (scientific or otherwise), and how to have fruitful discussions with others about even the most contentious topics.

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

Introduction to Logic and Critical Thinking, version 2, Matthew J. Van Cleave, 2016, available free at: https://open.umn.edu/opentextbooks/textbooks/introduction-to-logic-and-critical-thinking

DELIVERY MODE(S): On-Campus

LEARNING OUTCOMES:

- Analyze arguments based on their structure and what counts as evidence for them.
- Analyze arguments to address common mistakes in reasoning.
- Evaluate the validity of deductive arguments using propositional logic.
- Evaluate the validity of deductive arguments using categorical logic.
- Analyze the reasoning used to support our everyday beliefs.
- Analyze the reasoning used to support scientific claims.

- To gain an understanding of important philosophical approaches to critical thinking.
- To develop critical thinking and problem-solving skills through the analysis of logical structure.
- To apply the analysis of logical structure to assumptions, values, principles, and reasoning as they affect society.
- See section on What we do in Philosophy for more.

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page http://ww.transferalberta.ca
** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

EVALUATIONS:

Participation	10%	
Comprehension Quizzes x 8 (5% each)	40%	January 16, January 23, February 4, February 13, March 6, March 18, March 27, April 8
Midterm Exam	20%	Friday, February 27
Final Exam	30%	Date TBD

- Note: The final exam schedule will be released by the school. It is your responsibility to review this schedule and arrive at the final exam as scheduled.
- Note: the participation grade is based on your active participation in class discussion. You don't have to attend every single class or talk in every single class to get a good participation grade, but you should be a regular contributor.

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-.**

Grading Chart

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100	C+	2.3	67-69
A	4.0	85-94	C	2.0	63-66
A-	3.7	80-84	C-	1.7	60-62
B+	3.3	77-79	D+	1.3	55-59
B	3.0	73-76	D	1.0	50-54
B-	2.7	70-72	F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

Actual schedule may vary slightly to allocate more time to formal logic in response to class needs.

Date	Topic
January 7	Introduction
January 9	Chapter 1: Reconstructing and analyzing arguments **Quiz 1: January 16** **Quiz 2: January 23**
January 14	
January 16	
January 21	
January 23	
January 28	Chapter 2: Formal methods of evaluating arguments **Quiz 3: February 4** **Quiz 4: February 13**
January 30	
February 4	
February 6	
February 11	
February 13	
February 18	WINTER BREAK
February 20	WINTER BREAK
February 25	Review Class
February 27	Mid Term Exam
March 4	Finish Chapter 2 **Quiz 5: March 6**
March 6	
March 11	Chapter 3: Evaluating inductive arguments and probabilistic and statistical fallacies **Quiz 6: March 18**
March 13	
March 18	
March 20	
March 25	
March 27	Chapter 4: Informal fallacies **Quiz 7: March 27** **Quiz 8: April 8**
April 1	
April 3	
April 8	
April 10	Review/Catch Up

STUDENT RESPONSIBILITIES:

Responsibilities of all students:

1. Please do not be late for class.
2. You are expected to complete assigned readings <u>before</u> class. Do not fall behind in the assigned readings because it is difficult to catch up.
3. If you miss class, it is your responsibility to obtain the information you missed.
4. Policies regarding final exams are governed by institutional policy. You should consult the Examinations policy in the NWP Calendar. You should consult the NWP Calendar for any questions regarding deferred exams but note that students are required to be available to write exams during the entire final exam period.

5. Exam and assignment deferrals may only be granted in extenuating circumstances such as extreme illness or other serious circumstances beyond the student's control. Work commitments, holidays, or forgetfulness are not considered legitimate reasons for missing assigned deadlines.
6. In cases where submitted work exhibits concerning patterns or raises questions for the instructor about its creation and the student's intellectual effort involved, students may be required to submit to an oral examination regarding the work at the discretion of the instructor. Failure to participate in the oral examination will result in an assigned grade of 0 for the assessment. If, following the oral examination, the instructor still has concerns about the work, the academic misconduct provisions of the Student Rights and Responsibilities policy may be applied.
7. You are adults. Please treat class as you would any professional setting. That means governing your actions so as not to disrupt the class.
    a. Feel free to use your technology discretely so long as it does not distract others.
    b. If you need to take a call, leave to use the bathroom or leave early, do it quietly so as not to disrupt the class on the way out.
    c. Don't start conversations on the side that will disrupt the class (join in class discussion instead!)
8. Please note that questions – philosophical or otherwise – are rarely well answered over email. If you have questions about how to write, course expectations or anything else, please ask during class (it will certainly benefit your fellow students) or come see me after class or in office hours. If you email with these sorts of questions, I will direct you to my office hours. I am happy to discuss your drafts in my office hours, but I will not review them by email.

STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at https://www.nwpolytech.ca/about/administration/policies/index.html
**Note: all Academic and Administrative policies are available on the same page.

ADDITIONAL INFORMATION:

What we do in Philosophy

I like to think of philosophers as product testers for ideas. A product tester doesn't test a product under regular use conditions, but rather puts the product into extreme conditions. For example, if a product is designed to run at -25° Celsius, a product tester might try to see if it works at -35°, because if it works in -35° it's safe to say it will work in -25°. In philosophy, we subject ideas to stress tests by considering the extreme cases. As you read through the readings, you'll find some unlikely and strange scenarios. We want to see if our ideas work in those scenarios, because if our ideas work in weird, extreme scenarios we can be sure they will work in ordinary cases as well.

Just like product testers, the fact that we are testing an idea doesn't mean that we believe it. Sometimes we don't even like the idea! But a product tester is neutral. We run the tests and see how the idea performs. We must always remember that we are testing ideas, not the people who happen to believe in them. As the philosopher Socrates often said, someone who shows you a problem with an idea that you believe in is doing you a favour by showing you that there are better, truer ideas out there to be discovered.