

PHIL 125A - Practical Logic*3 Credits, 3 hours*

Practical Logic refers to the elementary methods and principles for analyzing, evaluating and constructing arguments. The course will focus on theory, explaining the core concepts and theoretical tools necessary for proper philosophical reasoning. This theoretical study will provide an introduction to formal notation, syllogism, informal fallacies, definitions and common argument forms. The course will also include instruction in the practical use of logic by explaining the skills and procedures used in sound argumentation. This practical exercise will provide basic instruction in writing arguments, evaluating media and applying diagnostic methods to reasoning as it occurs in contemporary debates.

No prerequisites are required for this course.

Instructor

Mark Young, Ph D.
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Office Hours

Tuesdays	1:00pm- 3:00pm	S213C
Thursdays	1:00pm – 3:00pm	S213C
Fridays	1:00pm – 2:00pm	S213C

(or by appointment)

Hours of Instruction

Tuesdays	9:00am – 11:50am	S210
Thursdays	9:00am - 11:50am	S210

Required Resources

None. All resources can be found on the Moodle site for the course.

Course Outcomes

Upon successful completion of the course, students will be able to:

- Make important technical distinctions in regard to language and arguments.
- Interpret and critically assess important texts and arguments.
- Identify different forms of reasoning and fallacies.

Evaluation

Students will be evaluated on the basis of three exams and submission of their practice sheets. The first two exams will only cover new material, but the final exam will be cumulative. These exams will be both content and skill based, and an outline for each exam will be provided before the exam.

First Exam	16 May	25%
Practice Sheet	16 May	3%
Second Exam	30 May	25%
Practice Sheet	30 May	3%
Final Exam	15 June	40%
Practice Sheet	15 June	4%
Total		100%

Practice Sheets

In this class we study how to reason well. This is often called critical thinking. So we will focus on various reasoning skills that students will apply in exams. In order to prepare for these exams students should complete various exercises. In order to motivate students to complete the relevant exercises part of your mark will be based on submitting your practice sheets. You will submit the practice sheets just before you write each exam. The value of the practice sheets for each term exam is 3%. The value of the practice sheets for the final exam is 4%. So the total value is 10%. The marks for the practice sheets will be based on merely submitting them as well as the depth of breadth of the work submitted. The practice sheets cannot be submitted late.

Exams

Most of the marks in the class are based on three exams. There will be two term exams worth 25% each and one final exam worth 40%. The term exams will cover only new material and the final exam will cover all material from the beginning of the course. The exams will include multiple choice and written answer questions. It will also contain various skill based sections. The term exams will primarily focus on new skills while only the final exam will cover all the skills covered since the beginning of the term.

A grade of C- is required for progression or transfer.

The minimum standard for passing this course is a grade of D (50%).

Grading System

Descriptor	Alpha Grade	4.0 Scale	Percent	Rubric for Letter Grades
Excellent	A+	4.0	> 92.9	Work shows in-depth and critical analysis, well developed ideas, creativity, excellent writing, clarity and proper format.
	A	4.0	85 – 92.9	
	A-	3.7	80 – 84.9	
Good	B+	3.3	77 – 79.9	Work is generally of high quality, well developed, well written, has clarity, and uses proper format.
	B	3.0	74 – 76.9	
	B-	2.7	70 – 73.9	
Satisfactory	C+	2.3	67 – 69.9	Work has some developed ideas but needs more attention to clarity, style and formatting.
	C	2.0	64 – 66.9	
	C-	1.7	60 – 63.9	
Poor	D+	1.3	55 – 59.9	

Minimum Pass	D	1.0	50 – 54.9	Work is completed in a general way with minimal support, or is poorly written or did not use proper format.
Failure	F	0.0	< 50	Responses fail to demonstrate appropriate understanding or are fundamentally incomplete.

Proposed Schedule of Topics

Section One: Introduction

1. What is Critical Thinking?
2. Can We Be Critical?
 - 2.1 Good Reasons to be Critical
 - 2.2 Bad Reasons to not be Critical
3. Critical Thinking and Rationality

Section Two: Arguments

4. Arguments: Introduction
5. Parts of Arguments
 - 5.1 Statements and Non-Statements
 - 5.2 Premises and Conclusions
6. Arguments and Non-Arguments
 - 6.1 Opinions
 - 6.2 Explanations
 - 6.3 Definitions
7. Standard Form
 - 8.1 Steps in Standardization
 - 8.2 Compression
 - 8.3 Rhetorical Questions
 - 8.4 Enthymemes
8. Complex Arguments
9. Convergent and Linked Arguments
10. Argument Diagramming
11. Formulating Arguments

Section Three: Language

12. Language: Introduction
13. Three Aspects of Meaning
14. Four Types of Definition
15. Five Methods of Definition Assessment
16. Argument from Definitional Fiat
17. Two Dialogical Methods for Formulating Arguments
 - 18.1 Paradigm/counter Example Method
 - 18.2 Genus and Differentia Method
18. Propositions
19. Conditional Propositions
 - 20.1 Hypothetical and Counterfactual
 - 20.2 Necessary and Sufficient Conditions
20. Five Types of Semantic Distortion

Section Four: Good Arguments

21. Good Arguments: Introduction
22. Acceptability
23. Relevance
24. Sufficiency

Section Five: Bad Arguments

25. Bad Arguments: Introduction
26. Sixteen Fallacies

Section Six: Deduction

27. Introduction
28. Validity and Soundness
29. Categorical Logic
 - 29.1 Four Propositions and Two Arguments
 - 29.2 Translating Categorical Arguments
30. Propositional Arguments
 - 30.1 The Logical Operators
 - 30.2 Translating Propositional Arguments
 - 30.3 Some Valid and Invalid Propositional Arguments

Section Seven: Induction

31. Introduction
32. Generalizations
33. Representative Samples
34. Background Rates
35. Statistics Need a Critical Eye
36. Counterexamples
37. Causal Arguments

Performance Requirements and Student Services

A late penalty of 3 marks per day, on a scale of 100, will apply to all late assignments, but will be waived for legitimate reasons if supporting documentation is provided. If an assignment is late, and not handed-in during class time, arrangements must be made with the instructor to hand-in the assignment. Should an assignment go missing, and the student is unable to produce another copy, the assignment will be considered not submitted. Likewise, if a grade is not recorded for an assignment the onus is on the student to demonstrate that the assignment was completed and graded. No late assignments are accepted after the last day of classes. No changes can be made to the class schedule, but exceptions can be made for legitimate reasons, such as an illness, if supporting documentation is provided.

Student Responsibilities

As a student, it is your responsibility to contact the Office of the Registrar to complete the required forms, including the Withdraw Course or Program or a Change of Registration form. Please refer to the important dates listed in the Academic Schedule in the [Keyano College credit calendar](#). The Keyano College credit calendar also has information about Student Rights and the Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and the Code of Conduct Policies.

Student Attendance

Class attendance is helpful for two reasons: First, class attendance maximizes a student's learning experience. Second, attending class is an excellent way to keep informed of matters relating to the course administration (e.g., the timing of assignments and exams). Ultimately, you are responsible for your learning and performance in this course. It is the responsibility of each student to be prepared for all classes. Absent students are responsible for the material covered in those classes, and students must ensure they are ready for their next class, including completing any missed assignments and notes.

Academic Misconduct

Students are considered responsible adults and should adhere to the principles of intellectual integrity. Intellectual dishonesty takes many forms:

- Plagiarism or the submission of another person's work as their own,
- The use of unauthorized aids in assignments or examinations (cheating),
- Collusion or the unauthorized collaboration with others in preparing work,
- The deliberate misrepresentation of qualifications,
- The willful distortion of results or data,
- Substitution in an examination by another person,
- Submitting unchanged work for another assignment, and
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies. To ensure your understanding of plagiarism, you may be required to complete the online [Understanding Plagiarism tutorial](#) and submit the certificate of completion.

Online Learning

Technology and internet connectivity will impact your online learning experience. You may be required to watch online videos, take online quizzes, or participate in live online classes. Live/virtual courses will be hosted in Microsoft Teams or Zoom. For all course delivery types, you will access your course resources on Keyano's learning management system: Moodle (iLearn). Login in using your [Keyano username and password](#). Keyano College operates in a Windows-based environment and having access to the correct tools for online learning is essential.

Internet Speed

Minimum download and upload speeds of 10 Mbps. Recommended download speeds of 25 Mbps and upload speeds of 10 Mbps (if you are sharing your internet at home). You can check your internet speed with [Speedtest by Ookla](#).

Computer System Requirements

Keyano College software are Windows based.

Minimum Requirements and Recommended Upgrades for Windows (preferred system) and Apple devices

These minimum standards are required for a Windows computer/laptop (OS 10 or 11) and a Macintosh (OS 10.14 or above).

1. Windows 10 Operating System or above
2. 4GB of RAM. Recommended upgrade to 8GB of RAM.
3. 10GB+ available hard drive storage space. Note installing Microsoft Office 365 requires 3GB of available hard drive space.
 - a. Install the Microsoft Office 365 suite (~3GB) *
4. Microphone, webcam, and speakers (All modern laptops have these three accessories built-in. However, a headset or earbuds with a microphone is also recommended.
5. Windows has built-in anti-virus/malware software. It is essential to install system updates to keep your device secured regularly.

*[Microsoft Office 365](#) is free to Keyano students.

Tablets, iPads, and Chromebooks are **not** recommended: they may not be compatible with the testing lockdown browsers and Microsoft Office 365.

Specific Department Requirements

Business and OA programs require Windows 10 or higher.
Other programs may utilize Windows-based tools as well.

Computer Software

Students have access to Microsoft Office 365 and Read & Write for free using Keyano credentials.

See [Recommended Technology](#) for more information.

Recording of Lectures and Intellectual Property

Students may only record a lecture if explicit permission is provided by the instructor or Accessibility Services. Even if students have permission to record a lecture or lecture materials, students may not share, distribute, or publish any of the lectures or course materials; this includes any recordings, slides, instructor notes, etc., on any platform. Thus, no student is allowed to share, distribute, publish or sell course-related content without permission. It is important to recognize that the Canadian Copyright Act contains provisions for intellectual property. The [Academic Integrity Policy](#) provides additional information on Keyano College's expectations from students as members of the intellectual community.

ITS Helpdesk

If you have issues with your student account, you can contact the ITS Helpdesk by emailing its.helpdesk@keyano.ca or calling 780-791-4965.

Specialized Supports

The Student Services Department is committed to Keyano students and their academic success. There is a variety of student support available at Keyano. All student services are available during Keyano business hours: Monday to Friday, 8:30 a.m. to 4:30 p.m. The College is closed on statutory holidays. If you require support outside of regular business hours, please inform the support service team, and they will do their best to accommodate your needs.

Accessibility Services provides accommodations for students living with disabilities. Students with documented disabilities or who suspect a disability can meet with an Access Strategist to discuss their current learning barriers and possible accommodations. Students who have accessed accommodations in the past are encouraged to contact the department to request accommodations for the following semester. Please note that requesting accommodations is a process and requires time to arrange.

Contact the department as soon as you know you may require accommodations. For accessibility supports and disability-based funding, please book an appointment by emailing us at: accessibility.services@keyano.ca.

Accessibility Services also provides individual and group learning strategy instruction for all students and technology training and support to enhance learning. You can meet with an Access Strategist to learn studying and test-taking strategies. In addition, you can schedule an appointment with the Assistive Technology Specialist to explore technology tools for learning. Book an appointment today by emailing: accessibility.services@keyano.ca

Wellness Services offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators provide a safe and confidential environment for you to seek help with personal concerns. Our Wellness Navigator offers support with basic needs such as housing, financial and nutritional support, and outside referrals when needed. Wellness Services welcomes students to participate in group sessions that address topics including mindfulness and test anxiety throughout the academic year. Individual appointments can be made by emailing wellness.services@keyano.ca.

Library Services provides students with research, information, and educational technology supports as they engage in their studies. Library staff are available to help you online and in person throughout the semester. Librarians offer individual and small group consultations booked using the online [Book A Librarian calendar](#). The library also provides virtual research and subject guides to help you with your studies. Find the guide that supports your course-related research by viewing the complete list of online [Subject Guides](#). To start your research and access citation guides (APA, MLA, Chicago, or IEEE), visit the [Research Help page](#). The library's collections (including print and online materials) are searchable using [OneSearch](#). The library offers a Loanable Technology collection to support students accessing and using technology. For an up-to-date list of technology available for borrowing, visit the library's [Loanable Technology webpage](#). For a detailed list of library resources and services, go to www.keyano.ca/library. For all inquiries, please email askthelibrary@keyano.ca or [chat with us online](#).

The **Academic Success Centre** at Keyano College (CC-119) provides **free** academic support services to registered students, such as tutoring, writing support, facilitated study groups, workshops, and study space. Academic Content Specialists are available in Mathematics, Science, Trades, Power Engineering, Upgrading/College Prep, Human Services, English, Humanities, and more. Students are encouraged to visit the Academic Success Centre to discuss study strategies and academic concerns. For additional information, please email Academic.Success@keyano.ca.

The **Academic Success Coach** is located in the Academic Success Centre and works with students to develop academic success plans, time management skills, study strategies, and homework plans. For additional information, please email Academic.Success@keyano.ca.

Authorization

This course outline has been reviewed and approved by the Program Chair.

Mark Young, Instructor

Marie-France Jones, Chair

Date Authorized

Coert Erasmus, Dean

Date Authorized

Signed copies to be delivered to:

Instructor

Registrar's Office