

## Course Overview

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### Introduction

Welcome to LIBS 7008: *Logic and Practical Reasoning*.

This *Course Overview* is an important guide to the course structure, learning materials, available resources, and expectations for completing the course requirements. Take some time to read this document carefully and to familiarize yourself with the information contained in it.

From time to time, your instructor will wish to relay special announcements, reminders, advice, and other messages to you directly. Two likely places to find such information are the *News* forum on the course website and your *BCIT email account*. It is your responsibility to make sure that you have access to *all* communication channels associated with this course and to monitor them regularly.

You will soon discover for yourself that *logic* and *practical reasoning* are very exciting fields that are directly relevant to all areas of life and study. Many interesting discussions await you. Have fun with this course!

### Course Overview Topics

This document will cover the following topics:

1. *Basic Course Information.*
2. *Course Description and Prerequisites.*
3. *Required Reading and Technology.*
4. *Course Learning Outcomes.*
5. *Course Structure and List of Modules.*
6. *Assessment.*
7. *Communicating with Your Instructor.*
8. *Academic Integrity.*
9. *Recommended Resources.*
10. *Student Café.*
11. *Strategies for Success.*
12. *Next Step.*

## 1. Basic Course Information

*Division:* School of Computing and Academic Studies

*Operating Unit:* Liberal Studies

*Course Number:* LIBS 7008

*Course Name:* Logic and Practical Reasoning

*Credits:* 3

*Course Instructor:* Dr. Mazen Maurice Guirguis

[mguirguis1@bcit.ca](mailto:mguirguis1@bcit.ca)

*Technical Support:* If you encounter problems accessing the course or navigating its website, please contact the *BCIT StudentHelp Desk* at (604) 412-7444 (option 2), or 1-800-351-5533 (option 2), or [studenthelp@bcit.ca](mailto:studenthelp@bcit.ca).

*Course Developer(s):* Dr. Mazen Maurice Guirguis

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## 2. Course Description and Prerequisites

This is an introductory course in *logic* and *practical reasoning*, in which students will study the process of argument construction and evaluation. The topics will focus on skills that will enable learners to distinguish argumentative from non-argumentative writing, rationally persuasive from rhetorically persuasive arguments, and positions that are strongly defended from those that are not.

The course emphasizes that people are responsible for the rationality of their opinions, in all areas of their lives. To that end, the course teaches methods for analyzing and evaluating both ordinary and famous arguments, as found in everyday life, politics, religion, science, technology, and philosophy.

*Prerequisite(s):* BCIT ENGL 1177, or 6 credits BCIT Communication at 1100-level or above, or 3 credits of a university/college first-year social science or humanities course.

## 3. Required Reading and Technology

There is no textbook required for this course. All course materials—including *notes*, *assigned reading*, and *videos*—will be provided to you. You will need a home or public computer equipped with a PDF document reader and reliable internet capability. You will also need a media player that is capable of playing standard video files. These are essential to access the recommended resources and complete the learning activities in this course.

## 4. Course Learning Outcomes

When you have completed this course, you should be able to:

- Understand philosophy as *conceptual analysis*, and identify the main branches and sub-branches of the discipline.
- Recognize what is and what is not an *argument* in a variety of contexts.
- Define and distinguish different *types* of arguments.
- Identify the anatomy of arguments—e.g., indicator words, premise(s) and subpremise(s), conclusions and subconclusion(s), and various patterns of support.
- *Standardize* and *formalize* arguments using prescribed logical tools and techniques.
- Recognize common *fallacies in reasoning*.
- Evaluate the strength of arguments—including *validity*, *soundness*, and *cogency*—in a variety of contexts.
- Construct clear and directed *objections* to weak arguments.
- Understand and apply the basic rules of *categorical logic* and *sentential logic*.

These are broad outcomes that will be supplemented with more specific learning objectives in each module.

## 5. Course Structure and List of Modules

Since this is a semester-based course, all of the course’s requirements must be completed within a set period. The course is divided into 12 parts, or *modules*, and includes preparation and study time. The modules are structured similarly, and include an *introduction* to the topic discussed, a set of *learning outcomes*, a list of *required reading(s)* and/or *video(s)*, *study questions* and/or *exercise sets*. In addition, each of the modules contains material that elaborates on key concepts or issues emerging from the reading. Students should start each module with the *Notes* document and follow instructions from there.

The table below outlines the course’s general structure, the topics covered and the required learning resources for each module.

Module	Topic	Learning Resources
1	<i>Philosophy and Critical Thinking</i>	<ul style="list-style-type: none"> <li>• Module 1 <i>Notes</i>.</li> <li>• <b>Reading 1.1:</b> “What Is Critical Thinking?” in G. M. Nosich’s <i>Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum</i>, 3<sup>rd</sup> ed., pp. 1-18, 223.</li> <li>• <b>Video 1.1:</b> “Crash Course Philosophy (Episode 1): What Is Philosophy?” Produced by PBS Digital Studios.</li> </ul>
2	<i>Arguments and Non-Arguments</i>	<ul style="list-style-type: none"> <li>• Module 2 <i>Notes</i>.</li> <li>• <b>Reading 2.1:</b> “Making Room for Argument” in L. A. Groarke and C. W. Tindale’s <i>Good Reasoning Matters! A Constructive Approach to Critical Thinking</i>, 5<sup>th</sup> ed., pp. 1-12, 14-20, 22-25.</li> </ul>
3	<i>Types of Persuasive Arguments</i>	<ul style="list-style-type: none"> <li>• Module 3 <i>Notes</i>.</li> <li>• <b>Video 3.1:</b> “Critical Thinking—Fundamentals: Validity” Produced by Wireless Philosophy.</li> <li>• <b>Video 3.2:</b> “Critical Thinking—Fundamentals: Soundness” Produced by Wireless Philosophy.</li> <li>• <b>Video 3.3:</b> “Critical Thinking—Fundamentals: Truth and Validity” Produced by Wireless Philosophy.</li> <li>• <b>Video 3.4:</b> “Crash Course Philosophy (Episode 3): How to Argue—Induction &amp; Abduction” Produced by PBS Digital Studios.</li> </ul>

4	<i>Pinning Down Argument Structure</i>	<ul style="list-style-type: none"> <li>Module 4 <i>Notes</i>.</li> <li><b>Reading 4.1:</b> “Introducing <i>ASSDA</i>” in M. M. Guirguis’s <i>Rational Persuasion: An Introduction to Informal Logic</i>, pp. 51-78.</li> <li><b>Reading 4.2:</b> “Tips for Argument Analysis” in G. Seay and S. Nuccetelli’s <i>How to Think Logically</i>, pp. 94-97.</li> </ul>
5	<i>Language and Expression</i>	<ul style="list-style-type: none"> <li>Module 5 <i>Notes</i>.</li> <li><b>Reading 5.1:</b> “Looking at Language” in T. Govier’s <i>A Practical Study of Argument</i>, 7<sup>th</sup> ed., pp. 57-80, 390-391.</li> <li><b>Video 5.1:</b> “Critical Thinking—Fallacies: Equivocation” Produced by Wireless Philosophy.</li> <li><b>Video 5.2:</b> “Crash Course Philosophy (Episode 28): How Words Can Harm” Produced by PBS Digital Studios.</li> </ul>
6	<i>Cogency and the ARG Conditions</i>	<ul style="list-style-type: none"> <li>Module 6 <i>Notes</i>.</li> <li><b>Reading 6.1:</b> “Good Arguments: An Introduction” in T. Govier’s <i>A Practical Study of Argument</i>, 7<sup>th</sup> ed., pp. 87-102, 392.</li> </ul>
7	<i>More on Acceptability</i>	<ul style="list-style-type: none"> <li>Module 7 <i>Notes</i>.</li> <li><b>Reading 7.1:</b> “Reasons for Belief and Doubt” in L. Vaughn and C. MacDonald’s <i>The Power of Critical Thinking</i>, pp. 122-156.</li> <li><b>Video 7.1:</b> “Critical Thinking—Fallacies: Begging the Question” Produced by Wireless Philosophy.</li> <li><b>Video 7.2:</b> “Faulty Appeal to Authority” Produced by Katie Liu.</li> </ul>
8	<i>More on Relevance and Grounds</i>	<ul style="list-style-type: none"> <li>Module 8 <i>Notes</i>.</li> <li><b>Reading 8.1:</b> “Arguments About What Is Natural” in T. Govier’s <i>A Practical Study of Argument</i>, 7<sup>th</sup> ed., pp. 80-83.</li> <li><b>Video 8.1:</b> “Critical Thinking—Fallacies: Straw Man Fallacy” Produced by Wireless Philosophy.</li> <li><b>Video 8.2:</b> “Critical Thinking—Fallacies: <i>Ad Hominem</i>” Produced by Wireless Philosophy.</li> <li><b>Video 8.3:</b> “Critical Thinking—Fallacies: Appeal to the People” Produced by Wireless Philosophy.</li> <li><b>Video 8.4:</b> “Fallacy of the Week—Argument from Ignorance” Produced by Martymer 81.</li> <li><b>Video 8.5:</b> “Appeal to Nature” Produced by FreeSci.</li> </ul>
9	<i>Inductive Arguments</i>	<ul style="list-style-type: none"> <li>Module 9 <i>Notes</i>.</li> <li><b>Reading 9.1:</b> “Arguments to and from Generalizations” in W. Sinnott-Armstrong and R. Fogelin’s <i>Understanding Arguments: An Introduction to Informal Logic</i>, 8<sup>th</sup> ed., pp. 219-228.</li> <li><b>Reading 9.2:</b> “Arguments from Analogy” in W. Sinnott-Armstrong and R. Fogelin’s <i>Understanding Arguments: An Introduction to Informal Logic</i>, 8<sup>th</sup> ed., pp. 267-271, 273-276.</li> <li><b>Video 9.1:</b> “Inductive Reasoning: Generalizations versus Analogical Arguments” Produced by Professor Rogacs PCC.</li> <li><b>Video 9.2:</b> “Critical Thinking—Fallacies: Fallacy of Composition” Produced by Wireless Philosophy.</li> <li><b>Video 9.3:</b> “Critical Thinking—Fallacies: Fallacy of Division” Produced by Wireless Philosophy.</li> </ul>
10	<i>Categorical Logic</i>	<ul style="list-style-type: none"> <li>Module 10 <i>Notes</i>.</li> <li><b>Reading 10.1:</b> “The Logic of Categories” in M. M. Guirguis’s <i>Rational Persuasion: An Introduction to Informal Logic</i>, pp. 236-265.</li> </ul>
11	<i>Propositional Logic I</i>	<ul style="list-style-type: none"> <li>Module 11 <i>Notes</i>.</li> </ul>
12	<i>Propositional Logic II</i>	<ul style="list-style-type: none"> <li>Module 12 <i>Notes</i>.</li> <li><b>Reading 12.1:</b> “The Logic of Propositions: Truth-Tables” in M. M. Guirguis’s <i>Rational Persuasion: An Introduction to Informal Logic</i>, pp. 297-316.</li> </ul>

## 6. Assessment

Your course grade will be based on tests, discussion assignments, and a final exam as indicated in the table below.

Assessment	Modules Covered	Duration Once Started (in minutes)	Type of Questions	Overall Weight
Test 1	1 - 4	90	True/False and Multiple-Choice	25%
Test 2	5 - 9	90	True/False and Multiple-Choice	30%
Discussion Assignments (3 submissions worth 5% each)	–	–	Formal Writing	15%
Final Exam	Cumulative	120	True/False and Multiple-Choice	30%

Please note that there are *no provisions for extra credit or re-dos* in this course. Everyone will be assessed in exactly the same manner based on the components listed in the table above.

### 6.1 Online Tests (OTs)

Two *online tests* will give you the opportunity to demonstrate your knowledge of the material covered and your understanding of the readings and study activities. Typically, a *three-day window* in which to complete each test is given. You can write a test anytime within that window, but all tests are timed. Once a test has been initiated, the time allotted for it cannot be paused.

The tests in this course may be regarded as open-book, but they all presuppose *adequate prior preparation* as if taken in-class. If you attempt a test relying only on a “look up the answers” strategy, you will not perform well. A fuller description of the tests is available on the main course website: *press on the **Activities** pulldown menu, then on **Quizzes**, then on the **name of the test** for which you want a description, then as indicated in the **yellow box**.*

Missed tests will be accommodated *only* in the following circumstances:

- Documented illness covering the entire period during which the test is open.

*If you miss a test for a medical reason, you are required to contact the instructor with an explanation no later than 24 hours after the test closes. Accommodation will be made in case of illness, but only if the illness covers the entire test period and medical documentation is provided.*

- System wide connectivity problems originating from BCIT.

*If your test is interrupted by connectivity problems originating from BCIT, you will be allowed to rewrite it on a later date. Connectivity problems originating from your end, however, will not be accommodated. It is your responsibility to make sure that the technology you use to access this course is reliable and in good working order. It is also your responsibility to familiarize yourself with the platform on which this course is delivered to a level of proficiency that is sufficient for completing the course requirements.*

## 6.2 Online Discussion Assignments (ODAs)

You are expected to participate in three *online discussion assignments*, which will require you to develop and defend an argument in relation to a given issue and then post your views on a discussion forum. You are also encouraged to *reply* to at least one posting from a classmate. While doing so is *not mandatory*, sustained dialogues about controversial topics, when conducted respectfully, carry great value, as they often challenge our convictions and lead to important insights.

Typically, a *three-day window* in which to complete each ODA is given. You must upload your posting (and reply to a classmate) within that window, neither before nor after. Detailed instructions for all discussion assignments, including information on posting procedures, are available on the main course website: *press on the **Activities** pulldown menu, then on **Discussions**, then scroll down to the **Posting Forum**, then as indicated in the **yellow box***. Make sure to read and follow these instructions carefully.

**To ensure fairness, ODA posting forums are set up so that you will not be able to see or reply to any of your classmates' postings until you have made a posting of your own. Only one posting per student is allowed and, once a posting has been uploaded, editing is not permitted.**

## 6.3 Final Exam

The *final exam* is cumulative and will assess your knowledge of the material covered in the entire course, but you may expect a strong emphasis on Modules 10, 11 and 12, the only components that have not been included in a prior assessment. The exam will be written online and may be considered open-book. *Individual effort and adequate prior preparation are expected.*

Unlike the online tests, the exam will be available for a *specific time period* scheduled by BCIT. You must write the exam within that period, neither before nor after. To access a fuller exam description, *press on the **Activities** pulldown menu on the course's main website, then on **Quizzes**, then on **Online Final Exam (Cumulative)**, then as indicated in the **yellow box***.

**The final exam is a **mandatory** component of the course's assessment and cannot be skipped. Students who do not write the final exam will not pass the course.**

## 6.4 The Course Calendar

Your instructor will determine the exact dates on which every component of the course's assessment is due. The course *Calendar*, available on the course's website, is your resource to finding out what these due dates and deadlines are. You are strongly advised to consult it regularly.

The due dates of every assessment component in this course will be **strictly enforced**. These due dates are clearly indicated in the course Calendar, and it is your responsibility to abide by them.

All assessment components (other than the final exam) will be open for several days. But technology is fallible, so give yourself time to deal with unexpected situations. It is highly recommended that you complete all assessments at the earliest possible opportunity within their availability period. **Do not leave a test or an assignment to the last minute.** If you do, you assume the risk and responsibility of all unforeseen problems.

## 7. Communicating with Your Instructor

Your instructor is here to guide you through the course and to answer any questions you may have. However, there are a few things to keep in mind when trying to get in touch with your instructor:

- The identity and contact information of your instructor are provided in Section 1 (above). Unless a telephone number is explicitly indicated, do *not* contact your instructor by phone or leave voice messages. Communicate with your instructor *only* through the email address given.
- Your instructor may be teaching several courses, each with multiple sections. For this reason, it is *very* important that you identify yourself properly when sending email messages. You should follow the convention of adding the course number and your full name in parentheses in the subject line of the message. For example,

**Subject: Final Exam Question (LIBS 7008, Jane Smith)**

Do this *every time* you send an email, even if you have done it many times before. Failure to follow this convention may result in response delays.

- Although this is an online course, your instructor has a workweek with specified hours. He or she may *choose* to answer emails at any time, but you should not *assume* that your instructor will be available outside of the regular workweek—that is, *Monday to Friday between 9:00 am and 4:00 pm*. Even during that time, it may take 24 to 48 hours for a reply to your email to reach you. Email exchanges are not like texting. Please keep that in mind as you plan communication.
- Finally, while your instructor may be an expert in his or her subject area, (s)he is *not* an expert in the technical operations of the online platform that hosts this course, nor is (s)he responsible for any technology-related problems generated by the system. If you encounter any difficulties accessing the course or navigating its website, contact the *BCIT StudentHelp Desk* for assistance at (604) 412-7444 (option 2), or 1-800-351-5533 (option 2), or [studenthelp@bcit.ca](mailto:studenthelp@bcit.ca).

## 8. Academic Integrity

Appropriate academic conduct requires that you complete all assessment components of the course independently (unless group work is specified), honestly, and without misrepresentation or plagiarism. Receiving *unauthorized assistance* for any part of this course, in *any form*, will be considered a *serious violation* of BCIT's *Academic Honesty Policy*, and will be dealt with in the strictest possible manner.

Plagiarism typically occurs in two forms:

- A person uses someone else's exact words or ideas as if they were his or her own.
- A person *paraphrases* someone else's ideas without acknowledging this fact or identifying the source.

Be sure to cite all sources of both direct quotations and borrowed ideas. If you do not, you could fail assignments and possibly the course. For further information, review the “Academic Integrity” section of the BCIT *Student Judicial Affairs* website, available at: <https://www.bcit.ca/judicial-student-conduct/academic-integrity/>.

## 9. Recommended Resources

As you proceed through the course, you may find the following resources useful:

- [\*Internet Encyclopedia of Philosophy\*](#)
- [\*Meta-Encyclopedia of Philosophy\*](#)
- [\*Philosophy Pages\*](#)
- [\*Stanford Encyclopedia of Philosophy\*](#)
- [\*OWL Purdue Writing Lab\*](#)

## 10. Student Café

A discussion space called the *Student Café* has been set up for you to communicate easily with other learners in the course about matters of mutual interest. This is an *informal* gathering area to help build a learning community, and you will *not* be graded on these postings.

For effective communication to take place, all participants need to feel welcome and comfortable. This is an expectation in all aspects of the course, which also extends to the *Student Café*. For this reason, basic respect of address is a prerequisite for participation in this forum. (Please note that the *Student Café* is accessible to the course instructor.)

## 11. Strategies for Success

Taking a course through distance or online education is different from learning in a face-to-face environment, and usually requires a high level of independent learning and use of various communication technologies. In addition to the resources available through BCIT, external websites, your instructor, and the course materials, the following strategies are offered for a successful learning experience.

### 11.1 Familiarize yourself with the course materials, Calendar, and News channel.

After you finish reading this *Course Overview*, have a quick look at the other materials posted on the course website, so you know what is expected of you and can plan your coursework time effectively. Let the course *Calendar* be your best friend! There, you'll find due dates for all assessment components and deadlines associated with the course. Consult the *Calendar* often to make sure that you are up-to-date and on-track. You should also familiarize yourself with the course's *News* channel. Important information, announcements, and notifications will be posted there, and it is your responsibility to make sure that you have access to them.



## 11.2 Set a regular study schedule.

Working at a steady pace will help you maintain momentum in completing your readings and learning activities. The course *Calendar* includes suggested start dates for all the modules in the course. These start dates are not written in stone, but following them will ensure that you have enough time during the semester to complete all assignments and to prepare for the final exam.

## 11.3 Work through the course modules in sequence.

The learning objectives in each module are designed to help you develop proficiency in critical thinking and analysis by progressively building skills in incremental steps. Working through the course modules *in sequence* will facilitate this process.

## 11.4 Read actively.

Reading an academic textbook is not like reading a novel. The latter you read as a *diversion*, but you read the former to *learn*. Academic textbooks contain information that must be understood and remembered for the purpose of assessments. To help you understand this information, they often provide definitions, examples, analogies, diagrams, exercises, and a variety of other pedagogical devices. The extent to which you understand the concepts introduced and elucidated by means of these devices is *exactly* what an assessment is meant to reveal.

Given the above, you should approach all readings assigned in this course in an *active* manner. *Reading actively* typically includes (but is not limited to) underlining or highlighting important passages, remembering definitions and explanations, completing all assigned exercises, and testing your understanding of the material you have learned by applying it to a variety of situations. In the context of arguments, this also means *evaluating* what you read. What is the arguer asking you to believe? Is the evidence provided *accurate*? Is it *relevant* to the position supported? Does it provide *sufficient grounds* for accepting the defended position? Are there *alternatives* to the arguer's point of view?

Use the margins of your textbook to write a few words reminding you of the topic of the discussion or passage. When you are finished with the reading assignment, go back to the beginning and *re-read* what you have highlighted, this time making *elaborate notes* (hand-written, not typed, in order to facilitate retention). If your notes are comprehensive and accurate, they will be all you need for studying.

This simple formula—*reading, highlighting, using the textbook margins, re-reading the highlighted material, making elaborate notes, completing the exercises and study questions, and reviewing the notes you produce*—is very common among high academic achievers. Use it for *all* your courses, but especially this one.

**Make sure to keep all the hand-written notes you make on the reading material in each module until the course is over. Use these notes to prepare for tests and the final exam.**

## 11.5 Review the learning objectives and answer the study questions and any assigned exercises as you complete each module.

Review the *learning objectives* of each module to ensure that you have achieved them. If you feel uncertain of your ability to meet any module's learning objectives, go back and re-read the relevant material until you are confident of your understanding. Answering the *study questions* and completing all *assigned exercises* at the end of each module plays an important role in preparing you for tests and the final exam. While these activities are not part of the course's assessment, you should *not* think of them as optional. Philosophy requires understanding, and practice is the way to achieve this.

**Make sure to keep all the answers you generate to the study questions and exercises in each module until the course is over. Use these answers to prepare for tests and the final exam.**

## 11.6 Give each assessment component your best.

The weights of the various assessment components vary, but they are all significant. You should give each and every one of these components your honest best, regardless of how much it is worth. A missed ODA could be the difference between passing the course and failing it.

## 11.7 Prepare carefully for the final exam.

The final exam is cumulative, but will emphasize the last three modules covered in the course. Completing the exercises in these modules is key. Do not neglect to do so.

## 11.8 Take advantage of the Student Café.

A *Student Café* has been set up and is accessible to all those enrolled in the course. The purpose of this forum is to enable you to communicate with your classmates, to get to know them better, and to initiate any course-related discussions. Although participating in this forum is voluntary, communicating regularly with your classmates will help you feel connected and will provide an additional venue where some of your questions may be answered.

## Next Step

Going through the course is easy. All you have to do is start reading the module *Notes* document (on the course's website) and follow instructions as you encounter them. The course *Calendar* will tell you where your progress should be in any given week.

You now have enough information to get started, so go and follow the first piece of advice given to you in the "Strategies for Success" section: *familiarize yourself with the course materials, Calendar, and News* channel. After you do that, proceed to **Module 1**.