

PHIL 1200 How to Think (Syllabus)

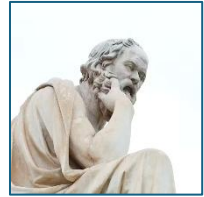
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Office Hours: TBD

Time and Place: TBD



Course Description

We encounter countless arguments every day. You have likely encountered arguments for which coffee shop is the best in town (is it Shortwave? Lakota?), arguments for what you should believe, and arguments for how you should vote. But what are arguments? What distinguishes good arguments from bad arguments? How should we evaluate and revise our beliefs in light of the arguments we encounter? The goal of this class is to answer these general questions. We will learn how to evaluate arguments, support our claims with evidence, and mitigate the effects of cognitive biases that lead our reasoning astray. In short, we will learn the general reasoning skills necessary for approximating the ideal human reasoner.

Main Course Goals

Below are the main course goals (1-6). For a more detailed breakdown of the goals for each week of the class, see the course schedule (below).

1. Students will **know** the basic concepts of argument identification and evaluation.
2. Students will **know** the intellectual virtues, and the challenge that cognitive bias poses to developing them.
3. Students will be better **able** to map arguments, explaining their logical structure.
4. Students will be better **able** to evaluate arguments based on their logical merits.
5. Students will be better **able** to regulate their own reasoning in order to avoid bias.
6. Students will make progress towards **being** more intellectually virtuous reasoners, responsive to reasons and charitable in discussion.

Your Responsibilities

To succeed in this course, you must:

- Attend the lectures [x times] per week, taking careful notes each day.
- Read all assigned reading material as carefully as possible, as both quizzes and exams will cover this material.
- Know the information found on this syllabus, the course Canvas site, and any other course documents.
- Have your Mizzou e-mail up and functional to receive communications from the instructor.

Principles of Intellectual Virtue

These are the principles of intellectual virtue that I do my best to adhere to (hold me accountable!). We will memorize these principles in unit one of this class. I urge you to consider adopting these principles yourself.

Fallibility Principle	I recognize that I may be wrong.
Truth-Seeking Principle	I seek truth, not victory.
Clarity Principle	I clearly and concisely articulate all of my claims and evidence.
Burden of Proof Principle	If I make a claim, I am obligated to defend it.
Principle of Charity	I represent the views of others in the best possible light.
Response Principle	(a) If a position is successfully defended, I should believe it; (b) If none is, then I should suspend judgement.

Grading

Assignment	Points	Weight
Exams 1, 2 & 3	100 (each)	60% (20% each)
Quizzes x 13	5	20%
Participation x 26	5	20%
Total:		100%

You will be graded on exams, quizzes, and participation, according to the point system shown in the table above.

Exams: There will be three exams (one at the end of each unit), each of which is worth 20% of your grade. Each exam will follow the same format: 10 multiple choice and true/false questions, and 1 written essay question. You will have 50 minutes to complete each exam. Note: I will give you the exams early (at least one week prior to the exam), so you know exactly what to prepare for. You are not permitted to have notes during the actual exam period.

Quizzes: There will be one short 5-10 question quiz during the last class of each week. You will have 5-15 minutes to complete the quiz, depending on the difficulty and number of questions. Taken together, these quizzes will be worth 20% of your total grade. Note: Your 2 lowest quiz grades will be automatically dropped!

Participation: Participation is worth 20% of your final grade. You will receive one participation grade for each class period. To get full credit on participation, come to class prepared and on time, participate in class activities, and actively engage with class discussions.

Course Schedule:

Week	Date	Topic	Goal	Reading/Assignment
1	TBD	Introduction to Critical Thinking	Know general course expectations, goals, and outline.	Read: Syllabus & Lyon and Ward (2018) Introduction
2		System One and System Two Psychology	Understand the distinction between system one and system two thought. Be able to identify instances of system one and system two thinking and understand their respective strengths.	Read: Kahneman (2011) <i>Thinking Fast and Slow</i> (Excerpt on Canvas)
3		Approximating the ideal human reasoner	Know the main principles of intellectual virtue and how cognitive biases can act as a barrier to the practice of those virtues. Know some of the main metacognitive skills that can be used to mitigate these biases.	Read: Maynes (2015) <i>Critical Thinking and Cognitive Bias</i> and (optional) Maynes (2017) <i>Steering Into the Skid: On the Norms of Critical Thinking</i>
4		Review and Exam (End of Unit 1)	Review and integrate course material.	Exam #1
5		Deductive Validity (Beginning of Unit 2)	Understand the notions of soundness and deductive validity	Read: Lyons and Ward (2018) chapter 1 & (optional) Internet Encyclopedia of Philosophy entry on <i>Validity and Soundness</i>
6		Proving Invalidity and Proving Validity	Be able to distinguish between valid and invalid natural language arguments. Know the basic techniques for proving validity and invalidity. Know some common logical fallacies (affirming the consequence, denying the antecedent) and argument forms (modus ponens, modus tollens, disjunctive syllogism, etc.).	Read: Lyons and Ward (2018) chapter 2
7		Reconstructing and Identifying Deductive Arguments	Be able to identify and distinguish between the premises and conclusions of natural language arguments. Be able to create simplified maps of complex deductive arguments.	Read: Lyons and Ward (2018) chapter 3
8		Review and Exam (End of Unit 2)	Review and integrate course material.	Exam #2
9		Introduction to Induction	Know the key differences between inductive and deductive arguments. Know the basic	Read Lyons and Ward (2018) chapter 4

			types of inductive arguments (statistical syllogism, argument from analogy, inference to the best explanation).	
10		Probability and Frequency	Know how to reason about probabilities using frequency trees and the basic probability calculus. Understand and be able to apply Bayes' theorem to calculate probabilities.	Read: Lyons and Ward (2018) chapter 6
11		Testimony, News Sources, and the Internet (Evaluating Premises)	Know the basic criteria for evaluating testimonies, be able to recognize arguments from authority, and understand the "epistemic perils of the internet".	Read: Lyons and Ward (2018) chapter 8
12		Selection Bias and Fallacious Arguments	Understand how statistical analyses of data can fail and mislead, both through selection bias and misleading representation. Know some of the most common types of fallacies (but don't forget to practice intellectual charity!).	Read: Bergstrom and West (2020) Chapter six of <i>Calling Bullshit</i> & Curtis Howd (2026) <i>The World's Worst Argument</i>
13		Review and Exam (End of Unit 3)	Review and integrate course material.	Exam #3