$\neg(P \wedge Q) \Leftrightarrow (\neg P \vee \neg Q)$

$P \rightarrow Q,\ P \therefore Q$

$\neg(\neg P) \Leftrightarrow P$



$\neg(\neg P) \Leftrightarrow P$

$P \wedge Q$		P
T	T	T
T	F	1
F	1	T
1	F	F

$$\frac{\neg P \wedge T}{\begin{array}{c} P \nrightarrow \neg Q \\ P \vee T \end{array}}$$
$$P \not\rightarrow \neg Q$$

$\neg AT, \neg P \Leftrightarrow P(P \vee P :: D)$

$\Rightarrow P^2 = P^2$

$P \rightarrow \overline{K} = \frac{1}{1+P}$

P	Q
T	T
F	0
F	1

$$\frac{P \rightarrow P \wedge Q \therefore Q}{(P \rightarrow P)}$$
$$\Rightarrow \frac{T\,\neg P \wedge P \therefore Q}{P \Leftrightarrow Q}$$

Course Overview

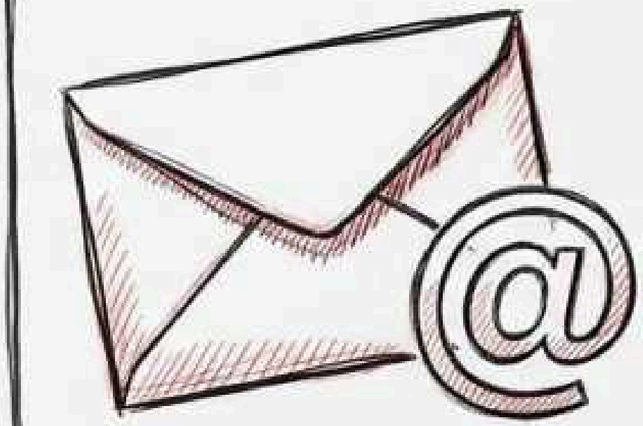
Philosophy 102 B: Logic

Anderson Academy

$\neg(\neg P \wedge P) \Leftrightarrow \neg(\neg P \vee \neg Q)$

$P \rightarrow Q$		T	P
T	F	F	T
F	T	1	F

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Questions & Feedback

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What is Logic?

¶0.2

The study of good reasoning.

[Reasons Given] ⇒ [Conclusions Drawn]

A 2,000-year-old toolkit to answer one central question:



Do the reasons we give actually support the conclusions we draw?

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The Purpose of Logic

¶0.3

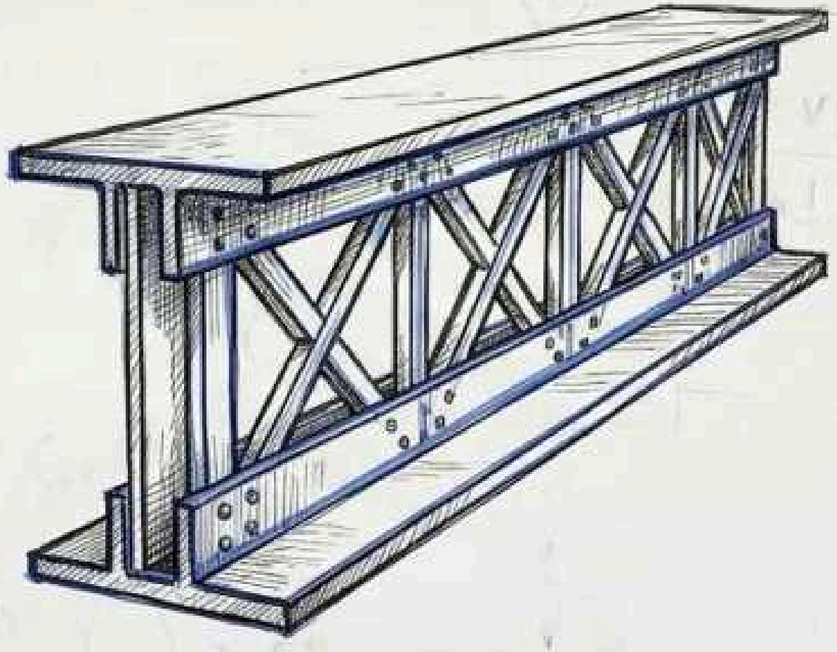
We are surrounded by persuasion from advertisers, politicians, and our own inner voices.

Sounds Impressive



Tell you what to believe.

Solid Structure

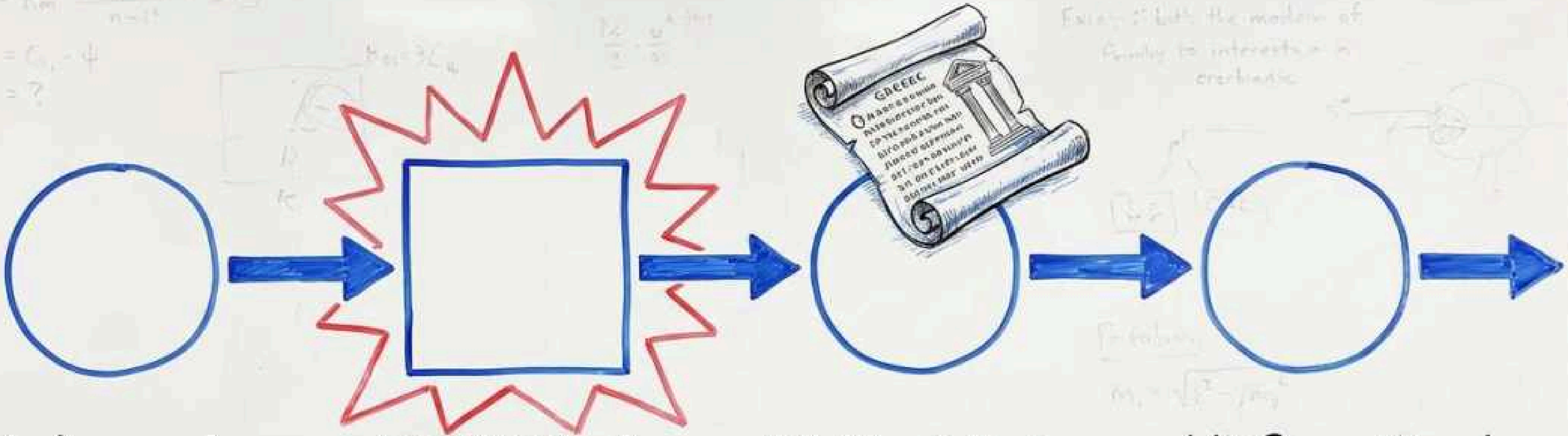


Teach you how to check if a belief has earned your trust by revealing the underlying argument structure.

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Course Map: Part I (Theory)

¶0.4



L1: Arguments

Premises, conclusions, and the two broad kinds of reasoning.

L2: Validity & Soundness

(The two most important ideas in the subject)

L3: The Syllogism

Aristotle's oldest system of formal logic.

L4: Propositional Logic

Truth tables and treating reasoning like arithmetic.

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Course Map: Part II (Application)

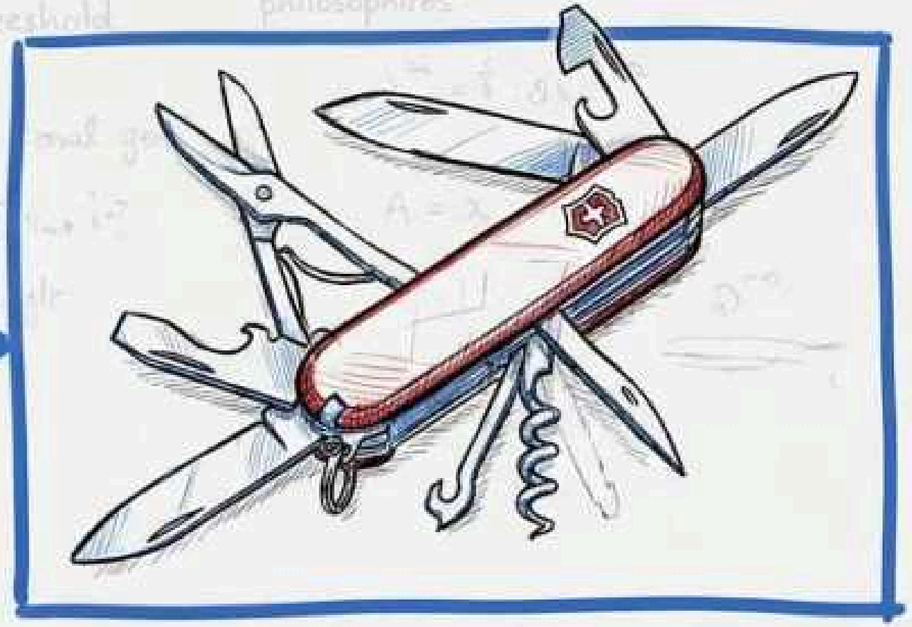
¶0.5

L5: Fallacies

Common mistakes in reasoning, both formal and informal.

L6: Inductive Reasoning

When conclusions are probable rather than certain.



Destination: Everyday Critical Thinking

A complete practical kit: a vocabulary to discuss arguments and a set of habits for testing them.

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Prerequisites

¶0.6

Requirements Checklist

- [✓] Ordinary Arithmetic
- [✗] ~~Advanced Mathematics~~
- [✗] ~~Prior Philosophy~~
  (PHIL 101 B not required)



Completely Standalone

Every technical word is explained when it appears.
Every symbol is described aloud so you can follow by listening.

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Logic is a Skill

¶0.7

Skills are learned by practice. Use this loop as you take the course:

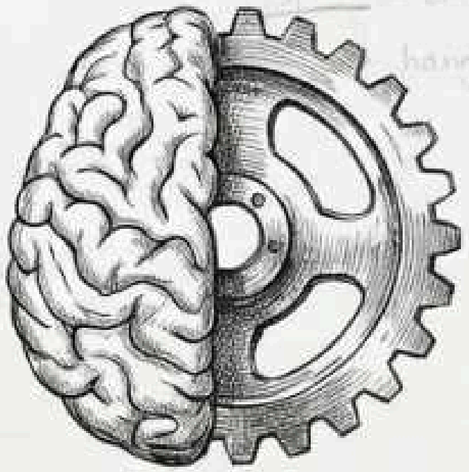
The Practice Loop

1. Listen: Hear the example argument.

2. Pause: Stop the lecture.

3. Test Mentally: Ask whether the argument works in your head.

4. Hear Verdict: Unpause and listen to the explanation.



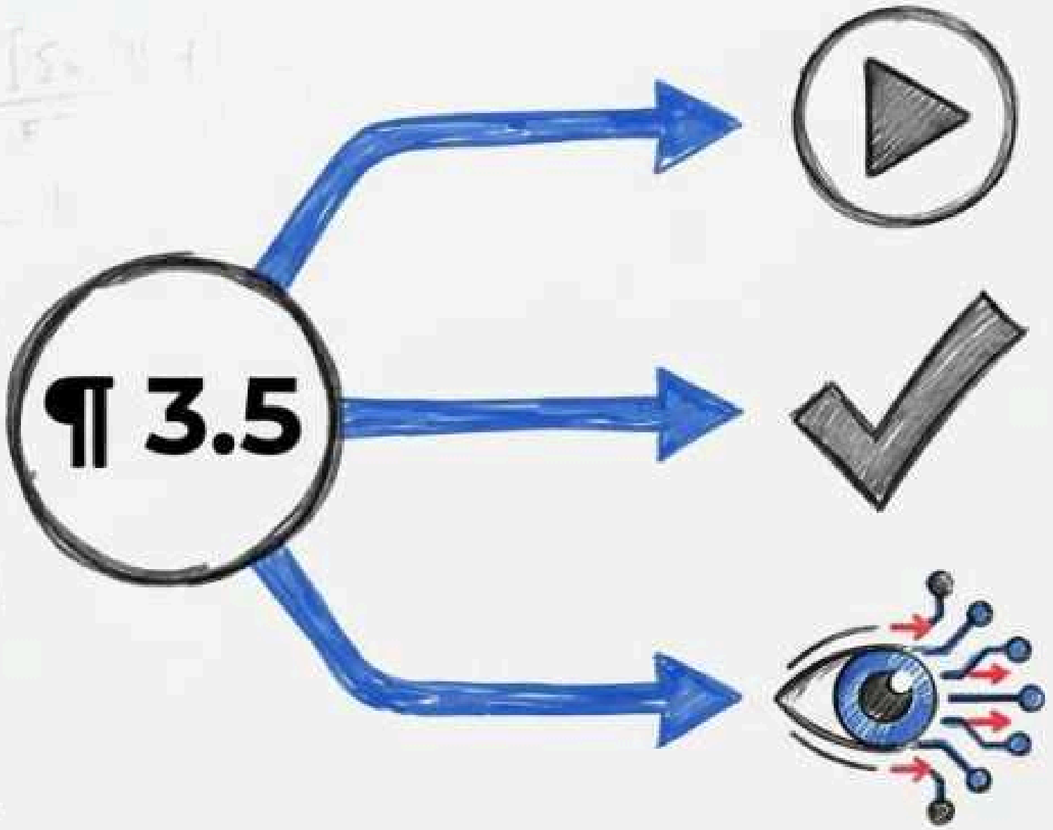
*Note: Quizzes and exams are for practice. Answer keys explain exactly why wrong choices are wrong.

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The Numbering System

¶ 0.8

Every paragraph in these transcripts has a number.



Transcripts & Video
(Read or watch)

Quizzes
(Questions point back to specific paragraphs)

AI Tutor
(Feed the text to an AI and ask it to test you)

Seamless Retrieval: The paragraph number connects you directly to the exact passage across all learning tools.

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¶0.9

Always Here to Help

Questions and feedback are continually welcome throughout the course.



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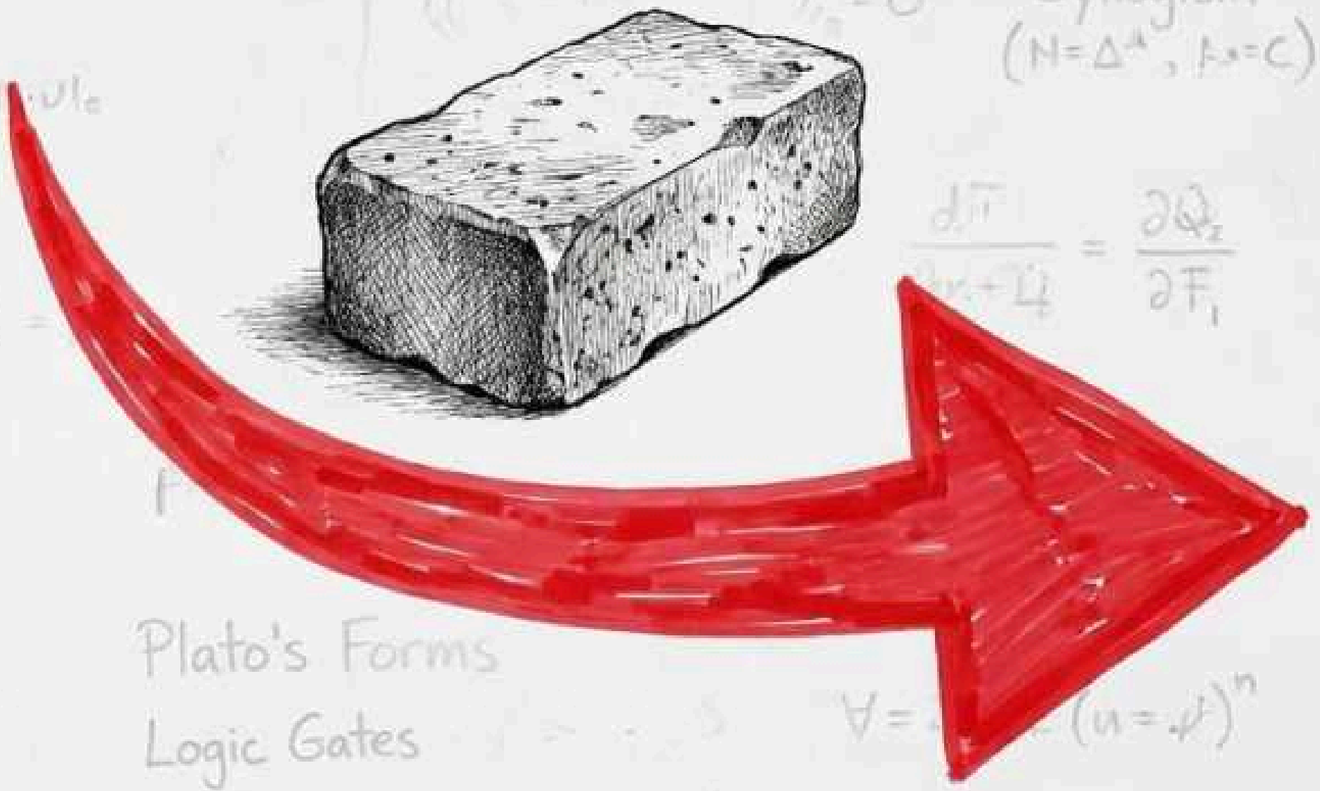
X: @garyanderson

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Let's Begin.

¶ 0.10

Contact Reminder:
mail.grokbot.com | @garyanderson



Up Next: Lecture 1

The Argument:
The Basic Unit of Logic

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