

PHIL 106: Introduction to Logic

Instructor: Professor Josh DiPaolo

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Office Hours: MW 2:30-4 & By appointment.

Class Time & Location: MW 1-2:15 PM CPAC 116

Course Description: Every day people reason with each other. Some of this reasoning isn't, in the grand scheme of things, very important. ("We should eat lunch at Panda Express today because we ate at Togo's last time.") But some of this reasoning has far-reaching consequences. ("We should elect this person because...") Logic is the study of good and bad reasoning. In this class, we will work to understand the importance of proper reasoning, and we will develop our reasoning abilities by learning certain skills that facilitate proper reasoning.

You will be a **truth-seeker** in this class, **not a mere information consumer**: rather than passively learning what others have thought, you will take an active role in helping yourself and others in class understand logic.

Texts: (WWA) *Why We Argue (And How We Should)* 2nd edition. By Aikin & Talisse ISBN: 978-1138087422

All other texts will be available on Titanium. **Please bring assigned texts to class.**

You can access Titanium for all your classes by clicking on your student portal, found on the CSUF website. Here is a [short video explaining Titanium access.](#)

Learning Goals

By the end of this class, if you earn a passing grade, you will be able to:

1. Identify arguments and their components
2. Describe why proper reasoning matters for individuals and societies
3. Describe several dialectical fallacies
4. Translate statements and arguments in natural language into symbolic logic
5. Show whether symbolic arguments are valid/invalid using truth-tables
6. Use truth-tables to identify the logical properties of statements
7. Use formal techniques to evaluate arguments
8. Describe some differences between deductive and scientific reasoning

GE Learning Objectives

What GE requirement does this course fulfill?

All CSUF students are assigned a "Catalog Year" that determines the requirements for their degree program, including requirements in their major(s) and in General Education. You can find your catalog year on your TDA. For more information please visit:

http://www.fullerton.edu/undergraduate/general_education/catalog-rights.php

Good news: regardless of your catalog year, this class fulfills the GE Area A.3 Critical Thinking Requirement.

Students taking courses in subarea A.3 shall practice and enhance their skills and abilities to:

- a. Understand the role of logic and its relation to language
- b. Understand elementary inductive and deductive processes, including formal and informal fallacies
- c. Develop the skills to distinguish propositions and states of fact from issues of judgment or opinion
- d. Develop skills to advocate for ideas
- e. Develop skills to reach well-supported factual and judgmental conclusions and the skills to successfully advocate for these conclusions
- f. Evaluate, critique, and analyze the quality and sufficiency of evidence and other forms of support for a position, including recognition of underlying lines of argument

To earn GE credit for this course, your final grade must be C- or better.

Grading Policy

Exam 1	90 Points
Exam 2	110 Points
Reading Quiz Pairs	60 Points
Problem Sets	70 Points
<u>Cave Project</u>	<u>70 Points</u>
	400 Points

A+	98-100%	392-400 Points
A	92-97%	368-391 Points
A-	90-91%	360-367 Points
B+	88-89%	352-359 Points
B	82-87%	328-351 Points
B-	80-81%	320-327 Points
C+	78-79%	312-319 Points
C	72-77%	288-311 Points
C-	70-71%	280-287 Points
D+	68-69%	272-279 Points
D	62-67%	248-271 Points
D-	60-61%	240-247 Points
F	0-59%	0-239 Points

Other Required Assignments

1. Philosophy in Life Post 1 and Comments
2. Philosophy in Life Post 2 and Comments

To earn a C- or better, you must complete these assignments.

Grade Changers

- **Participation:** 25 points will be deducted from your final grade if you do not participate regularly or you are regularly distracting in class.
- **Attendance:** You have 2 free absences. 2.5 points will be deducted from your final grade for any unexcused absences. Attendance will be recorded starting in the 3rd week of classes.

Make-Ups

I would much rather you turn something in late than not at all. If you missed an assignment and would like an opportunity to complete it, please get in touch with me ASAP. If the assignment has been graded and handed back to students, it's very unlikely that a make-up opportunity will be granted. Again, please talk to me ASAP.

Please ask questions about these policies if you're not sure you understand them!

Coursework Descriptions

Attendance: Attendance is required because you won't do well in this course if you don't attend. To find out what you missed when you miss class, come to office hours or ask:

1. _____
2. _____
3. _____

Exams: You will complete two exams in this course, a midterm and a final. The final is cumulative. These exams will assess your learning of material and your ability to demonstrate that you're developing skills in logic. *If you're doing well on problem sets in and out of class, you should expect to do well on the exams. If you're struggling with the problem sets, you may struggle to do well on the exam. (So, please come to office hours if you're struggling!)*

Satisfies a-c of A.3

Participation: Participating in class benefits you and others. We often learn while we attempt to express our thoughts. And since you have a unique perspective, everyone else in the class learns when you share that perspective. Here are some ways to participate:

1. Ask questions about the readings or lectures.

2. Answer questions when asked.
3. Contribute your perspective to a discussion.
4. Complete assigned problems, on your own and with your group.
5. Mention a relevant life experience at an appropriate time.
6. Discuss course material with me outside of class.
7. Participate during small group activities.

Satisfies a-f of A.3

Reading Quiz Pairs: 7 quiz-pairs. Reading is required for this course. I will outline the important points from the readings in class, but to understand what's going on you'll need to do the assigned reading. To help you keep up with the readings, there will be 7 reading "quiz-pairs."

This assignment will seem weird at first. By the end of the semester, you'll like it. Here's how it works:

You will have to take each quiz twice: the day we discuss the reading in class and the next day of class. (Hence, "quiz-pair.") There will be four or five questions on each quiz. And since you already know the questions that will be on the second quiz – **they will be the exact same questions that were on the first quiz** – you can carefully prepare the second time around to ensure that you get a perfect score. **Your lowest quiz-pair score will be dropped.**

Why so weird?? The purpose of the first quiz is to give you incentive to read the assigned reading carefully before the class in which it will be discussed. The purpose of the second quiz is to reinforce your understanding of that reading after our class discussion. The second quiz also makes the first quiz, which is clearly the harder of the two, less weighty. Thus, this method of incentivizing and evaluating reading comprehension is more forgiving than more traditional reading quiz assignments.

Example: You get 3 out of 5 questions correct on Reading Quiz 1A, and 4 out of 5 questions correct on Reading Quiz 1B. Your quiz-pair score is: 7/10.

Satisfies a-f of A.3

Problem Sets: 7 problem sets. To do well in this class, you'll need to regularly practice solving logical problems. To give you that practice, I've assigned these problem sets. They will ask you to complete exercises related to what you learned earlier in the week. They should be submitted in class on the due dates.

Satisfies a-f of A.3

Cave Project: This assignment gives you an opportunity to reflect on something that interests you, while attempting to understand as far as possible the position of people with whom you strongly disagree. You will write a 2-3 page double spaced paper in which you: (i) state a belief you strongly held before the project, (ii) describe an opposing belief, (iii) describe what you take to be a strong argument for this opposing belief, (iv) identify something you find plausible in this argument, (v) explain and defend your stance on the argument, (vi) reflect on and describe what, if anything, you've learned from completing this project. This will be assessed based on completion, writing quality, accuracy, and demonstration of serious thought.

Stage 1: Complete (i) and (ii)

Stage 2: Complete (iii) and (iv)

Stage 3: Write the complete paper that does all of (i)-(vi)

Satisfies d-f of A.3 and GE Writing Requirement

Philosophy in Life Posts: To help you get in the habit of approaching your life philosophically, you will complete two "philosophy in life" posts in the discussion forums on Titanium. For these assignments, you will write about connections between your life and what you've learned or thought about in this course. You will also read and comment on some of your peers' posts.

Satisfies a-f of A.3

Communication

Office Hours: I have office hours scheduled on Mondays and Wednesdays this semester. This means I will be available in my office to discuss course material (or other issues) at those times. If my scheduled office hours aren't convenient, feel free to schedule a different time to meet.

"I wish I had come to office hours all semester!"

You can benefit from discussing course material outside of class. **True story:** One semester, a student of mine who never came to office hours earned one of the lowest grades on the midterm. Then he started regularly attending office hours. Right before the final, he told me, "I wish I had come to office hours all semester." He ended up getting one of the highest grades on the final. Don't wait! The course material is difficult. Come discuss it with me.¹

Contact Policy: Outside of office hours, you can reach me at the email address above. I will respond promptly within 24 hours to most emails. If you do not receive a reply within 24 hours, please talk to me in class or send another email as a reminder. **If you have a question about the course mechanics or schedule, please check the syllabus before emailing.**

Your Responsibilities: I expect you to regularly check your email and Titanium for announcements.

Electronics

Electronic devices are permitted in class, but must be used solely for class purposes. Browsing Facebook, catching all of the Pokemon, and captioning animal pictures are not class purposes. I will prohibit devices if they are not being used appropriately.

Disability & Special Needs

I will do my best to help students with disabilities, special needs, or learning challenges succeed in this course. Students with disabilities who need classroom accommodations, access to technology, or information about emergency building/campus evacuation processes should contact Disability Support Services. Services are available to students with a wide range of disabilities and conditions.

Phone: (657) 278-3112

Website: www.fullerton.edu/dss

Academic Integrity & Plagiarism

Please only submit work that is *your own*. Doing otherwise is one of the worst mistakes you can make in your academic career. When students plagiarize in my classes, they receive a score of 0 points on the assignment and I refer them to the Dean of Students' office.

The university defines 'plagiarism' as "the unacknowledged and inappropriate use of the ideas or wording of another writer" and instructs me to include the following info on my syllabus:

If plagiarism is found in your work, you will be subject to prosecution to the fullest extent of university code, which will result in a failure of the assignment and will probably result in your failure of the course. Confirmation of plagiarism precludes you from being eligible to repeat the course under the university's course repeat and grade forgiveness policy. For complete details regarding the university's policies about plagiarism and other forms of cheating, see

<http://www.fullerton.edu/integrity/student/AcademicIntegrityResources.asp>

http://www.fullerton.edu/senate/publications_policies_resolutions/ups/UPS%20300/UPS%20300.021.pdf

¹ Why should you go to office hours? <http://college.usatoday.com/2015/11/28/office-hours/> What are some things you might say in office hours? <https://studentlife.uoregon.edu/node/381050>

Tentative Schedule (Subject to Change)

Week 1	Reading
8/26: Introduction	
8/28: What is logic? Are you a “logic person”?	Leach-Krouse Ch. 1
Week 2	Reading
9/2: HOLIDAY: Labor Day No Class	No New Reading
9/4: Why do we argue?	WWA Ch. 1
Assignments	
9/2: Work on Cave Project: Stage 1	
9/4: Reading Quiz 1A (WWA Ch. 1)	
Week 3	Reading
9/9: Arguments, Validity, Soundness	Logic Lecture
9/11: Why Argument Matters	WWA Ch. 2
Assignments	
9/9: Reading Quiz 1B (WWA Ch. 1)	
9/11: Reading Quiz 2A (WWA Ch. 2)	
Week 4	Reading
9/16: Propositional Logic: Logical Operators & Translations	Baronett Section A
9/18: Propositional Logic: Compound Statements	Baronett Section B
Assignments	
9/16: Reading Quiz 2B (WWA Ch. 2)	
Week 5	Reading
9/23: Public Argument in a Democratic Society	WWA Ch. 3
9/25: Propositional Logic: Truth-Tables	Baronett Section C
Assignments	
9/23: Problem Set #1	
9/23: Reading Quiz 3A (WWA Ch. 3)	
9/25: Reading Quiz 3B (WWA Ch. 3)	
Week 6	Reading
9/30: Propositional Logic: Truth-Tables for Propositions	Baronett Section D
10/2: Propositional Logic: Truth-Tables for Logical Properties	Baronett Sections E-G
Assignments	
9/30: Problem Set #2	
10/2: Philosophy in Life Post	
10/3: Philosophy in Life Comments	

Week 7**Reading**

10/7: Review
 10/9: Exam 1

No New Reading

Assignments

10/7: Problem Set #3 (Review Prep)
 10/9: Exam 1

Week 8**Reading**

10/14: Getting the Logic Right
 10/16: Getting the Logic Right: Cave Project

Rachels Active and Passive Euthanasia, WWA Chs. 6, 9

Assignments

10/14: Reading Quiz 4A (Rachels, WWA Chs. 6, 9)
 10/16: Reading Quiz 4B (Rachels, WWA Chs. 6, 9)
 10/16: Cave Project: Stage 1 (Bring to Class)

Week 9**Reading**

10/21: Sentence Derivations: Purpose and Conjunction Rules
 10/23: Sentence Derivations: Conditional Rules

Martin Conjunction Rules
 Martin Conditional Rules

Assignments

Work on Cave Project: Stage 2

Week 10**Reading**

10/28: Argumentation Between the Ads & Language, Spin, & Framing
 10/30: Sentence Derivations: Disjunction Rules

WWA Chs. 10-11
 Martin Disjunction Rules

Assignments

10/28: Problem Set #4
 10/28: Reading Quiz 5A (WWA Chs. 10-11)
 10/30: Reading Quiz 5B (WWA Chs. 10-11)

Week 11**Reading**

11/4: Sentence Derivations: Negation Rules
 11/6: Sentence Derivations: Biconditional Rules

Martin Negation Rules
 Martin Biconditional Rules

Assignments

11/4: Problem Set #5
 11/7: Cave Project: Stage 2 (Submit Online)

Week 12**Reading**

11/11: Catch-Up/Review/Practice
 11/13: Catch-Up/Review/Practice

No New Reading
 No New Reading

Assignments

11/11: Problem Set #6

Week 13**Reading**

11/18: Argument Online
11/20: The "Owl of Minerva" Problem

WWA Ch. 12
WWA Ch. 13

Assignments

11/18: Reading Quiz 6A (WWA Ch. 12)
11/20: Reading Quiz 6B (WWA Ch. 12)

Week 14**Reading**

11/25: Argumentative Responsibility and Repair
11/27: HOLIDAY Fall Break No Class

WWA Ch. 14

Week 15**Reading**

12/2: Scientific Reasoning
12/4: Scientific Reasoning

Lyons & Ward Science
No New Reading

Assignments

12/2: Reading Quiz 7A (Lyons & Ward Science)
12/4: Reading Quiz 7B (Lyons & Ward Science)
12/4: Philosophy in Life Post 2
12/5: Philosophy in Life Comments

Week 16**Reading**

12/9: Catch-Up/Review
12/11: Catch-Up/Review

No New Reading
No New Reading

Assignments

12/9: Problem Set #7 (Review Prep)
12/12: Cave Project Stage 3 (Submit Online)

Week 17

Final Exam: 12/16 1-2:50PM CPAC 116

Emergencies

To be prepared for classroom emergencies, please visit: <http://prepare.fullerton.edu>