

UCSB | Summer 2016

PHIL 3

Critical Thinking

MTWR 9:30 – 10:35 | TD-W 2600

INSTRUCTOR:

Juliana Lima

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<https://julianaflima.github.io/>

South Hall 5721 | Office Hours: R 10:40 – 12:40

TEACHING ASSISTANT:

Jeonggyu Lee

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South Hall 5718 | T&W 3:00 – 4:00

Sections: T 4:00 – 5:20 HSSB 1206

W 4:00 – 5:20 HSSB 1211

COURSE DESCRIPTION AND OBJECTIVES

The goal of this course is to help you develop skills to engage in valuable and productive discussions about virtually any topic. This will be achieved by providing you with some basic tools to evaluate arguments. We will begin by understanding what arguments are and how they differ from explanations. Next we'll learn two different kinds of arguments: deductive and inductive arguments. We will then discuss some of the most common patterns of those two kinds of arguments which will allow us to distinguish between bad and good arguments. Whereas what we'll learn in the course does not cover all ways of evaluating any argument, it will give you a good starting point.

LEARNING OUTCOMES

Students who successfully complete the course will...

1. Know what an argument is;
2. Recognize the difference between arguments and explanations;
3. Understand the difference between deductive and inductive argument;
4. Discriminate between good and bad arguments.

COURSE REQUIREMENTS

- 25% Weekly Quizzes (5 quizzes; 5% each)
- 35% Midterm - July 7th / 11th or take home
- 40% Final (cumulative) - July 29th

Sections & Lectures

Attendance will not be taken. However we strongly encourage you to attend both as we think the material is hard for most students and what you are supposed to get out of this class requires face to face interaction and discussion, after all it's a course on improving skills to engage in discussions!

Homework

Homework will be assigned but won't be graded. Again, we encourage you to do all exercises because acquiring the skill you are supposed to develop in this course requires practice. You get better in evaluating arguments by carefully analyzing a great number of them. The more exercises you do, the better you'll get.

Weekly Quizzes

Quizzes will be online (on GS) posted at the end of each week so you can monitor your own understanding of what we discussed in that week. There will be 5 quizzes total, each worth 5%. The quizzes are designed to be completed in no more than one hour. Keep in mind you have only one attempt to answer all questions.

Weekly Diary

At the end of every lecture you'll have 3-5 minutes to fill in your diary which will be distributed every week. We encourage you to participate in this activity for two reasons: (i) it is a good way of studying for this class (if you find this method

successful, you might want to adapt it for other classes); and (ii) the last one or two questions in the weekly quizzes will be about it (and remember that you get full credit only if you answer all questions)

** This course is structured in a way that makes all activities essential, regardless of whether they are individually graded. In other words, the content of the lectures are prepared assuming that you have done the reading for that day, that you'll do the homework & quizzes, attend sections and fill in your diary. If you decide to only attend lecture and neglect other activities, you won't get all the practice you need to do well on the exams. **

NOTE: Things change – the Fates are fickle. Consequently, information found on this syllabus is subject to revision as we progress through the quarter: Readings and content may be added (or cut) depending on our rate of progress, and it may be necessary to amend the due date of the assignments. Revisions will be announced in lecture and posted online. It is each student's responsibility to keep informed of any changes.

MATERIALS

- Baronett, Stan, *Logic*. (New York: Oxford University Press, 2013 – third edition)
- Additional readings to be posted on my personal website

COURSE SCHEDULE & READINGS

WEEK 1: Recognizing Arguments

- 06/20 What is an argument?
 - Read: Chapter 1, sections A & B: pp.2-18
- 06/21 Argument vs. Explanation.
 - Read: Chapter 1, section C: pp. 18-22 (if time, section D)
- 06/22 Deductive vs. Inductive.
 - Read: Chapter 1, sections E: pp.22-28
- 06/23 Validity/Soundness vs Strength/cogency
 - Read: Chapter 1, section F & G: pp. 29-30; 42-47

WEEK 2: Propositional Logic

- 06/27 Symbolization – connectives
 - Read: Chapter 7, section A & B: pp. 307-313; 314-317; 318-324
- 06/28 Symbolization – propositions
 - Read: Chapter 7, section B: 324-328
- 06/29 Characteristic truth-table
 - Read: Chapter 7, section C & D: pp. 328-335; 338-341
- 06/30 Complete truth-table; check validity with both complete & abbreviated truth-tables
 - Read: Chapter 7, section D, G & H: pp. 341-346; 355-357; 360-364; 368-376

WEEK 3: Propositional Logic

- 07/04 No classes – holiday
- 07/05 Abbreviated truth-table, contingency, tautology and self-contradiction
 - Read: Chapter 7, section E: pp. 347-349
- 07/06 Implication, Equivalence, Contradictory, Consistent & Inconsistent statements
 - Read: Chapter 7, section F: pp.349-355; 376-379
- 07/07 Midterm (July 7th or 11th; or take home)

WEEK 4: Propositional Logic

- 07/11 Deduction: rules of inference (MP, MT, DS, Simp, Conj, Add, DN, Equiv)
 - Read: Chapter 8: pp.382-387; 387-396; 401-404; 406-413; 415-416; 429-430
- 07/12 Deduction: rules of inference (DM)
 - Read: Chapter 8, section E: pp. 414-415; remainder of sections B, C, D, E & F
- 07/13 Deduction: rules of inference (CP)
 - Read: Chapter 8, section G: pp. 442-450
- 07/14 Deduction: rules of inference (IP)
 - Read: Chapter 8, section H: pp. 450-455

WEEK 5: Intro to Quantified Logic | Informal Fallacies

Lectures this week will use the book as a guide but will differ significantly from it. It's the student's responsibility to attend lectures & sections and become familiar with the way the content will be presented. If you have any questions, please attend your TA's or instructor's office hours.

- 07/18 Intro to Quantified Logic
 - Read: Chapter 9, section A: pp. 461-470; Chapter 5, section D, Venn Diagrams: 195-201; Chapter 6, section C: 241-253
- 07/19 Intro to Quantified Logic – counterexamples
 - Read: Chapter 9, section E, Counterexample Method: pp. 489-490
- 07/20 Counterexample to propositions and arguments
 - Read: Chapter 9, section F: pp. 495-500
- 07/21 Informal Fallacies
 - Read: Chapter 4, section B: pp. 121-123; 124-134

WEEK 6: Informal Fallacies | Review

- 07/25 Informal Fallacies
 - Read: Chapter 4, section C: pp. 136-150
- 07/26 Informal Fallacies
 - Read: Chapter 4, section D: pp. 150-152; 154-162; 165-169
- 07/27 Review
- 07/28 Review

FINAL: Friday, July 29th 4 – 7pm, TD-W 2600

We won't have time to go over cognitive biases. But I highly recommend you to watch these videos learn about psychological tendencies that can influence our judgment and be detrimental to objectivity and critical thinking:

<http://www.wi-phi.com/video/cognitive-biases-gi-joe-fallacy>
<http://www.wi-phi.com/video/cognitive-biases-peak-end-effect>
<http://www.wi-phi.com/video/cognitive-biases-mental-accounting>
<http://www.wi-phi.com/video/cognitive-biases-reference-dependence-and-loss-aversion>
<http://www.wi-phi.com/video/cognitive-biases-pricing-biases>
<http://www.wi-phi.com/video/cognitive-biases-anchoring>

Further readings on cognitive biases:

- D. Kahneman, *Thinking fast and slow*
- D. Kahneman, *Choice, Values, and Frames*

ACADEMIC INTEGRITY

I take academic dishonesty in any form very seriously: I will prosecute any offenses, seeking penalties ranging up to and including expulsion from the university. The university's Academic guide to Integrity is available online: <http://judicialaffairs.sa.ucsb.edu/PDF/academicintegflyer.pdf>. It is every student's responsibility to be familiar with the university's policies. If you see anything there that you don't understand please contact me.

STUDENT SUPPORT AND CAMPUS RESOURCES

If you are facing a major medical or another major difficulty that is keeping you from doing well in the class, contact me as soon as you can. I am happy to work with you to find the best course of action and, if possible, to help you complete the course successfully. But I can't help if you don't let me know about your circumstances as soon as they arise.

**** Please, don't wait until after the final exam to let me know about your circumstances. At that point there is virtually nothing we can do to accommodate you. ****

1) *CAPS (Counseling & Psychological Services)*

If you're dealing with depression, anxiety, or are just feeling overwhelmed, CAPS is available to help. They offer individual and group counseling, as well as relaxation rooms and other resources to make the quarter more bearable.

- tel: (805) 893-4411
- <http://counseling.sa.ucsb.edu>

2) *CARE (Campus Advocacy Resources & Education)*

CARE provides resources related to sexual assault, stalking, and intimate partner violence. They offer free and confidential counseling, medical and legal assistance, and help with referrals for long-term support for those who need it.

- tel: (805) 893-4613
- <http://wgse.sa.ucsb.edu/Care>

3) **RCSGD** (*Resource Center for Sexual and Gender Diversity*)

The RCSGD provides resources for gender, sexual, romantic minorities such as: lesbian, gay, bisexual, transgender, asexual, intersex, and otherwise gender/sexual/romantic nonconforming individuals.

They also collect reports of hate incidents and maintain a list of gender neutral bathrooms on campus.

- tel: (805) 893-5847
- <http://wgse.sa.ucsb.edu/sgd/>

4) **CLAS** (*Campus Learning Assistance Services*)

CLAS offers workshops on study skills like note-taking and time management; group tutorials on math, science, and economics; assistance with essay-writing, and other free services that will help you perform well in your classes.

- <http://clas.sa.ucsb.edu>

5) **DSP** (*Disabled Students Program*)

If you have any sort of disability - physical or mental, permanent or temporary – we strongly encourage you to register with DSP. They can then notify your instructors if you need certain accommodations during classes or during tests.

A disability can be something like difficulty seeing or hearing; difficulty attending class due to physical or emotional distress; chronic anxiety or depression; or anything else that interferes with your schoolwork.

There's no shame in seeking help for these sorts of things, but unfortunately UCSB requires that instructors receive confirmation from DSP before providing accommodation. Since DSP is often busy, contact them as soon as possible if you need or expect to need their support.

- tel: (805) 893-2668
- <http://dsp.sa.ucsb.edu>