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PHL 317K (42380)

Introduction to Logic

TH 9:30-11:00am

PAR 1

Bryce Dalbey
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WAG 411
Office Hours: M/Tu 11-12
(or just email me to set up another time)

Course Description

In most of your courses you engage with arguments for e.g. quantum mechanics being non-local, libertarianism being correct, gender being socially constructed, tarsiers being prosimians. Some of those arguments are good and some are bad. In this class we will not be as concerned with giving arguments so much as with examining what makes an argument good or bad. We will employ a special set of tools for evaluating arguments and build on those tools as the term going on, to evaluate more complex arguments. Your ability to use these tools will give to an advantage in nearly every other academic (and many non-academic) field you might pursue.

Syllabus Disclaimer

This syllabus, especially the topics and readings for each day, may change as the semester progresses. If it changes I will upload a new version to Canvas at least a week before the dates for which the changes were made. A change in the syllabus is no excuse to have not done the readings or be prepared for a test on a given day.

Texts

There is one required text for this course:

Title: *Deduction*, 2nd Edition
Author: Daniel Bonevac

It should be available from the bookstore. There is no single-use media in the book so feel free to buy it used.

Attendance

Attendance is mandatory and will be taken. For every unexcused absence your participation grade drops by

25% (e.g. after four unexcused absences your participation grade drops to 0. However, you can be excused from class for a documented illness, family emergency, religious holiday, or any other condition specified by the university OR if you email either of us before class begins on the day you will miss to tell us (truthfully) why you cannot attend.

Attendance not guarantee a full participation grade. You must also engage with the class on an at least semi-regular basis.

Grade Distribution

Attendance	10%
Office Visit	5%
Problem Sets (seven)	70%
In-class Exam (two)	15%

Accessibility

I try hard to make all aspects of my course accessible to all students. If you have an academic accommodation through Services for Students with Disabilities, please ask them to set up the relevant accommodation with me (See http://ddce.utexas.edu/disability/)

If you have some concern regarding course accessibility that falls outside the purview of SSD, please come speak to me about it. I would like to help you get as much out of this course as possible.

Academic Dishonesty

If you are found engaging in any form of academic misconduct on an exam or other course-related task you will, at a minimum, receive a zero on that assignment. You may also fail the course and face official disciplinary hearings. Please ask me if you are unsure whether something counts as academic misconduct.

Tentative Course Outline

If the schedule changes I will upload a new version to Canvas and email the class.

Week	Date	Material	Readings	Assignments
Week 1	01/17	Introduction	—	—
	01/19	Arguments and Validity	1.1-1.2	—
Week 2	01/24	Implication	1.3-1.5	—
	01/26	Symbolization	2.1-2.4	PS 1 Assigned
Week 3	01/31	Truth Tables	2.5-2.9	—
	02/02	Truth Tables	2.5-2.9	PS 1 Due
Week 4	02/07	Truth Trees	3.1-3.2	PS 2 Assigned
	02/09	Truth Trees	3.3	—
Week 5	02/14	Predicate Logic	5.1-5.2	PS 2 Due
	02/16	Predicate Logic	5.3-5.5	PS 3 Assigned
Week 6	02/21	Predicate Logic	6.1-6.2	—
	02/23	Quantified Truth Trees	6.1-6.2	PS 3 Due
Week 7	02/28	Quantified Truth Trees	6.3-6.4	PS 4 Assigned
	03/02	Identity and Functions	8.1-8.3	—
Week 8	03/07	Review	—	PS 4 Due
	03/09	Exam 1	—	—
Week 9	03/14	Spring Break	—	—
	03/16	Spring Break	—	—
Week 10	03/21	Modal Logic	9.1-9.3	—
	03/23	Modal Logic	—	PS 5 Assigned
Week 11	03/28	Modal Logic	9.4-9.6	—
	03/30	Modal Logic	—	PS 5 Due
Week 12	04/04	Modal Logic	—	PS 6 Assigned
	04/06	Modal Logic	9.7-9.8	—
Week 13	04/11	Modal Logic (Guest Lecture)	—	PS 6 Due
	04/13	Modal Logic (Guest Lecture)	—	PS 7 Assigned
Week 14	04/18	Bayesianism	—	—
	04/20	Bayesianism	—	PS 7 Due
Week 15	04/25	Bayesianism	—	PS 8 Assigned
	04/27	Bayesianism	—	—
Week 16	05/02	Review	—	PS 8 Due
	05/04	Exam 2	—	—