Logic and Critical Thinking

PHIL 2050.001

Fall 2022, 8/29/22-12/16/22

Meeting times: Monday/Wednesday 10:00-10:50am

Location: WH 117

Instructor:

Ben Larsen (he/him)
Ben.larsen@unt.edu
ENVS 372A
Office hours: Tuesday 9am-Noon

Course Description and Objectives:

Philosophy 2050 is designed to be an introduction to the methods, content, history, and importance of logical reasoning. We will begin with an introduction to logic, proceed to learn informal fallacies, then move to Aristotelian logic and end with the syntax, semantics, and translations for sentential logic. The goal of the instructor is to provide materials and guidance that fosters independent thinking about the rules and function of logic both in our everyday lives as well as in philosophical argumentation: to organize and analyze information in a cogent form; help students to understand and appreciate the complexities of rational thinking, soundness, validity, and deduction; and to encourage students to read and think critically, employing techniques learned throughout the semester. There will be a significant amount of homework due every week. The format for the course will be lecture/dialogue/discussion/exercises.

Grading:

Students will be evaluated by means of three in-class exams administered throughout the course of the semester. Daily pop quizzes will be implemented as necessary and will count as part of your participation/attendance grade. The final grade for the course will be weighted as follows:

Test 1: Vocabulary of logic, Informal fallacies	30%
Test 2: Aristotelian Logic	30%
Test 3: Sentential/Propositional Logic	30%
Attendance/Participation/Quizzes	10%

Late exams and homework will not be accepted. If you know in advance of expected absences for religious observances or other reasons, please make arrangements with me.

Required Materials:

A Concise Introduction to Logic, Hurley & Watson, 13th edition

Homework:

Weekly homework will be collected every Friday at the end of our recitation meeting. Homework will count towards your test grades, as well; completion of weekly assignments can add as many as 10 bonus points to each test grade.

Grading Scale:

Final course grades will reflect the following scale.

A=90%+ B=80-89% C=70-79% D=60-69% F=0-59%

Attendance:

You are expected to be on time and attend every class. Attendance will be taken **5** minutes after the start time of class. If you are not present when attendance is taken, you will be counted absent for the day. Excessive absences will lower your grade. Owing to the contingencies of life, **you are permitted 5 absences**, after which each subsequent absence will lower your final attendance grade by one letter grade. If you are absent, there is no need for documentation explaining the absence—all absences will be treated the same, meaning there is no difference between "excused" and "unexcused" absences. If you do not stay for the entirety of class, you will be counted absent.

Communication expectations:

Communication regarding course information will be handled through Canvas. If you have questions or concerns at any point during the term and wish to contact the instructor via email, please contact him using the address listed above. The instructor will do his best to respond within 24 hours Monday-Friday and may take longer to respond on days when class does not meet.

Inclusivity Statement:

UNT students represent a variety of backgrounds and perspectives. This professor is committed to providing an atmosphere for learning that respects diversity and inclusion.

UNT Policies:

Academic integrity expectations:

Students are responsible for reading, understanding, and following UNT's Academic Dishonesty Policy, which can be found here: https://policy.unt.edu/policy/06-003

ODA accommodation statement:

The University of North Texas is committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of 1973 as amended. Students with disabilities requiring accommodations in the classroom should contact UNT's Office of Disability Access (ODA) which works in partnership with faculty and staff to eliminate or minimize barriers in the educational environment and facilitate inclusion on campus by determining reasonable accommodations that will enable every student to have equal access to the full range of UNT programs and services. Students with accommodations or services already coordinated by the ODA should contact the professor immediately via email or during scheduled office hours to ensure all necessary services are in place for their success.

Prohibition of Discrimination, Harrassment, and Retaliation (Policy 16.004)

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, prodecures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e. severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

Drop/Withdrawal Information and other Academic Dates:
http://essc.unt.edu/registrar/schedule/scheduleclass.html

Schedule

Week 1, Chapter 1: Basic Concepts	
8/29 Vocabulary; Informal Logic	
8/31 Arguments, Induction vs. Deduction	1.1-1.3
9/2 Induction vs. Deduction	1.1-1.3
Week 2, Chapter 1: Basic Concepts	
9/5 NO CLASS, LABOR DAY	
9/7 Validity, Soundness, Strength, Cogency	1.4-1.5
9/9 Validity, Soundness, Strength, Cogency	1.4-1.5
Week 3, Chapter 3: Informal Fallacies	
9/12 Validity, Soundness, Strength, Cogency *Last day to drop a course without it showing up on transcripts*	1.4-1.5
9/14 General Fallacies, Fallacies of Relevance	3.1-3.2
9/16 Fallacies of Relevance, Weak Induction	3.1-3.2
Week 4, Chapter 3: Informal Fallacies	
9/19 Weak Induction, Presumption, Ambiguity, Grammatical Analysis	3.3-3.4
9/21 Fallacies in Ordinary Language	3.5
9/23 Exam Review	
Week 5, Chapter 4: Categorical Propositions	
9/26	**EXAM 1**
9/28 Quantity, Quality, Distribution, Venn Diagrams	4.1-4.3
9/30 Categorical Propositions, Venn Diagrams	4.1-4.3
Week 6, Chapter 4: Categorical Propositions	
10/3 Venn Diagrams, Square of Opposition	4.3
10/5 Functions	4.4
10/7 Propositions and Functions	4.3-4.5
Week 7, Chapter 5: Categorical Syllogisms	
10/10 Form, Mood, Figure, Venn Diagrams	5.1-5.2
10/12 Rules and Fallacies	5.3
10/14 Categorical Syllogisms	5.1-5.3
Week 8, Chapter 5: Categorical Syllogisms	
10/17 Enthymemes	5.6
10/19 Sorites	5.7
10/21 Exam Review	
Week 9, Chapter 6: Propositional Logic	
10/24	**EXAM 2**
10/26 Symbols, Translation, Truth Tables	6.1-6.2
10/28 Propositional Language	6.1-6.2
Week 10, Chapter 6: Propositional Logic	
10/31 Truth Tables for Propositions	6.3
11/2 Truth Tables for Arguments	6.4
11/4 Truth Tables continued	6.3-6.4
Week 11, Chapter 6: Propositional Logic	

11/7 Indirect Truth Tables for Propositions	6.5
11/9 Indirect Truth Tables for Arguments	6.5
11/11 Indirect Truth Tables for Propositions and Arguments	6.5
Week 12, Chapter 7: Natural Deduction	
11/14 Rules of Implication I	7.1
11/16 Rules of Implication II	7.2
11/18 Rules of Implication *Last day to withdraw from a course*	7.1-7.2
Week 12, Chapter 7: Natural Deduction	
11/21 Rules of Replacement I	7.3
11/23 NO CLASS, THANKSGIVING BREAK	
11/25 NO CLASS, THANKSGIVING BREAK	
Week 13, Chapter 7: Natural Deduction	
11/28 Rules of Replacement II	7.4
11/30 Conditional Proof	7.5
12/2 Rules of Replacement & Conditional Proof	7.3-7.5
Week 14, Chapter 7: Natural Deduction	
12/5 Indirect Proof, Proving Logical Truths (if time)	7.6-7.7
12/7 Catch-up/Exam Review	
12/9 Reading Day, Recitation OPTIONAL	
Week 15: Finals Week	
12/10 SATURDAY, 8:00-10:00 WH 117	**EXAM 3**