

University of North Texas
Logic and Critical Thinking
PHIL 2050

Instructor: Hyun Yang

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Office hours: Monday, Wednesday, and Friday 12 pm-1 pm (and by appointment)

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I. Rationale and Course Outline:

Logic is a way of rationally expressing human thinking, a frame for analyzing the elements that makeup thinking, and serves as an objective criterion for evaluating other people's thinking. Logic is a branch of philosophy that systematizes logic academically and is an indispensable discipline for analyzing and evaluating human rational thinking. By learning logic, students can reconsider their own logical thinking, and by cultivating the ability to evaluate the logical thinking of others critically, they can diagnose various problems encountered in reality and come up with sound solutions.

II. Course Outcomes:

By the end of the course, students should be able to demonstrate the ability to:

- accurately and fairly represent the thoughts and ideas of another
- think critically about a text or set of ideas
- clearly and compellingly communicate their own conclusions in conversation with others
- articulate what social and personal responsibility looks like in particular circumstances

III. Course Requirements:

1. Class attendance and participation policy:

On-time attendance is *mandatory*. It is highly recommended that you finish reading before classes to solve the exercises and prepare for the exams.

2. Course readings:

- Required text: Patrick J. Hurley and Lori Watson, *A Concise Introduction to Logic*, 13th edition, Cengage Learning, 2016.

3. Assignments

Final grades will consist of the following:

Class participation	20%
Homework	40%
Two Exams	40%

Class Participation: Class attendance is required. Absences may be excused by your providing pertinent written documentation or by your submitting a formal written summary of that day's scheduled reading.

Homework: Students should submit their answers to exercises in the textbook. The instructor will assign homework in the class; students should submit the answer in digital format by next Monday. You can submit your assignment to Canvas. You can take pictures of your handwriting homework or submit your word processor file, such as doc, pdf, txt, and so on.

Two Exams: Students have to take two exams before the end of the semester. Each exam comprises 20% of your course grade. Each exam consists of about 30 questions.

*Mid-term Exam: 8 March 2024.

*Final Exam: 6 May 2024.

VI. Course Schedule

January 17–19: 1.1 Arguments, Premises, and Conclusions – 1.2 Recognizing Argument

January 22–26: 1.3 Deduction and Induction – 1.5 Argument Forms: Proving Invalidity

January 29–February 2: 3.1 Fallacies in General – 3.3 Fallacies of Weak Induction

February 5–9: 3.4 Fallacies of Presumption, Ambiguity, and Illicit Transference – 4.1 Categorical Propositions

February 12–16: 4.2 Quality, Quantity, and Distribution – 4.3 Venn Diagrams and the Modern Square of Opposition

February 19–23: 4.4 Conversion, Obversion, and Contraposition – 4.5 The Traditional Square of Opposition

February 26–March 1: 4.6 Venn Diagrams and the Traditional Standpoint – 5.1 Standard Form, Mood, and Figure

March 4–6 : 5.2 Venn Diagrams

March 8: Mid-Term Exam

March 11–15: Spring Break (no classes)

March 18–22: 5.3 Rules and Fallacies – 5.4 Reducing the Number of Terms

March 25–29: 5.7 Sorites – 6.1 Symbols and Translation

April 1–5: 6.2 Truth Functions – 6.4 Truth Tables for Arguments

April 8–12: 6.5 Indirect Truth Tables – 7.1 Rules of Implication I

April 15–19: 7.2 Rules of Implication II – 7.3 Rules of Replacement I

April 22–26: 7.4 Rules of Replacement II – 7.5 Conditional Proof

April 29–May 3: 7.6 Indirect Proof – 7.7 Proving Logical Truths

May 6: Final Term Exam

VII. Academic Integrity

Students caught cheating or plagiarizing will receive a "0" for that particular assignment or exam. Additionally, the incident will be reported to the Dean of Students, who may impose further penalty.

According to the UNT catalog, the term "cheating" includes, but is not limited to:

- a. use of any unauthorized assistance in taking quizzes, tests, or examinations;
- b. dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
- c. the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university;
- d. dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or
- e. any other act designed to give a student an unfair advantage.

The term "plagiarism" includes, but is not limited to:

- a. the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; and
- b. the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

VIII. Accommodations for students with disabilities (ADA statement)

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website at <https://studentaffairs.unt.edu/office-disability-access>. You may also contact ODA by phone at (940) 565-4323.