

National Taiwan University of Science and Technology

2020 Summer Program

PHIL 200 Introduction to Logic

Course Outline

Term: June 22-July 17, 2020

Class Hours: 10:30-13:00 (Monday through Friday)

Course Code: PHIL 200

Instructor: Dr. Duane Long

Home Institution: State University of New York at Buffalo

Office Hours: TBA

Email: hdlong@buffalo.edu

Credit: 4

Class Hours: This course will have 72 class hours, including 40 lecture hours, 10 lecturer office hours, 10-hour TA discussion sessions, 2-hour review sessions, 10-hour extra classes.

Course Description: Intro to Logic gives students an intensive study of first-order formal logic, including Propositional Logic, Truth Tables, and Predicate Logic, including Quantification

Course Outcomes: By the end of the course, students will have a grasp on all of the essentials of first-order logic, including primitive and derived rules, translation of ordinary-language sentences into propositional and predicate sentences, use of universal and existential quantifiers, and analysis of truth tables.

Required Textbooks: Logic Primer, 2nd edition by Colin Allen and Michael Hand



Grading & Evaluation: Nightly homework will be 60% of a student's grade. The remaining 40% will be determined by a final examination.

Grade distribution:

Grade	Quality Points	Percentage
А	4.0	93.0% -100.00%
A-	3.67	90.0% - 92.9%
B+	3.33	87.0% - 89.9%
В	3.00	83.0% - 86.9%
В-	2.67	80.0% - 82.9%
C+	2.33	77.0% - 79.9%
С	2.00	73.0% - 76.9%
C-	1.67	70.0% - 72.9%
D+	1.33	67.0% - 69.9%
D	1.00	60.0% - 66.9%
F	0	59.9 or below

Course Policies:

<u>Attendance</u>: Students are expected to attend every class and arrive to class on time. Remember that each class period is going to cover almost as much material as a 16-week class would cover in a week. Arriving late will result in a 2% penalty to semester grade per class. An unexcused absence will result in a 5% penalty to semester grade, and only 1 absence for the semester can be excused, regardless of reason.

Recordings: Students are allowed and even encouraged to record lectures if they wish.

<u>Academic dishonesty</u>: any student found to have cheated on an exam will get an F for that exam. Cheating on more than 1 exam will automatically result in a failing grade for the course.



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Course Schedule:

Week1

June 22 - Discuss Logic Primer pp. 1-15. Homework: Exercise 1.3, #14-25

June 23 - Read and Discuss Logic Primer pp. 17-26. Homework: Exercise 1.4.1 and Exercise

1.4.2 # S1-S10

June 24 - <u>Read and Discuss</u> *Logic Primer* pp. 28-30. <u>Homework</u>: Exercise 1.5.1, Selected Proofs June 25 - <u>Discuss</u> Selected Proofs from Exercise 1.5.1, # S11-S52. <u>Homework</u>: Exercise 1.5.1 # S53-S60 and S62-63

Week2

June 29 - <u>Read and Discuss</u> *Logic Primer* pp. 32-35. <u>Homework</u>: Exercise 1.5.1, Selected Proofs from S64-S86.

June 30 - Discuss Selected Proofs from Exercise 1.5.1 S64-S86. Read <u>and Discuss</u> *Logic Primer* pp. 35-38. <u>Homework</u>: Selected Proofs from Exercise 1.6.1 T1-T39

July 1 - Read and Discuss Logic Primer pp. 39-42. Homework: None

July 2 - <u>Read and Discuss</u> *Logic Primer* pp. 43-49. <u>Homework</u>: Selected Truth Tables from Exercise 2.4.2

Week3

July 6 - <u>Read and Discuss</u> *Logic Primer* pp. 54-55. <u>Homework</u>: Selected Truth Tables from Exercise 2.5.2

July 7 - <u>Read and Discuss</u> *Logic Primer* pp. 57-62. <u>Homework</u>: Selected Problems from Exercise 3.1.1

July 8 - <u>Read and Discuss</u> *Logic Primer* pp. 63-67. <u>Homework</u>: Selected Problems from Exercise 3.1.2 and all of Exercise 3.1.3

July 9 - <u>Read and Discuss</u> *Logic Primer* pp. 67-71. <u>Homework</u>: Selected Problems from Exercise 3.2

Week4

July 13 - <u>Read and Discuss</u> *Logic Primer* pp. 76-85. <u>Homework</u>: Selected Problems from Exercise 3.3.2

July 14 - <u>Read and Discuss</u> *Logic Primer* pp. 76-85. <u>Homework</u>: More Selected Problems from Exercise 3.3.2

July 15 - <u>Read and Discuss</u> *Logic Primer* pp. 89-91. <u>Homework</u>: Selected Problems from Exercise 3.4.1

July 16 - Read and Discuss Logic Primer pp. 89-91. Homework: None