

## PHIL 122: Elementary Logic

Spring 2010

Prof. Anthony R. Reeves

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**Office Hours:** Thursday 2:00 - 4:00 PM

I will be in my office and available during office hours, but you can make appointments to see me at other times. My preference is that we make appointments by email, and have substantive discussions face-to-face.

**Teaching Assistants:** Ms. Jess Kyle ([jkyle1@binghamton.edu](mailto:jkyle1@binghamton.edu))

Ms. Jessie Payson ([jpaysn1@binghamton.edu](mailto:jpaysn1@binghamton.edu))

### Course Description

In this course, we will learn the basics of formal logic and examine some core concerns of metalogic. The course does not presuppose prior familiarity with formal logic and any mathematical concepts necessary will be explained as we go along. In general, students are responsible for learning material presented in *both* the assigned readings and the lecture. Some material in the assigned reading may not be explicitly covered in the lecture. Also, some material presented in lecture may not be in the reading. It will be important to get detailed notes from a classmate in case of a missed class.

### Objectives

The student will:

- Understand the basic ideas of deductive logic and be able to explain what a logical system is
- Be able to identify some of the central issues in metalogic
- Understand the basic concepts of sentential and predicate logic
- Be able to prove both validity and invalidity in sentential and predicate logic
- Understand the motivations for modal logic and its basic methods
- Improve ability to reason deductively and identify problematic lines of reasoning

**Required Text** (Available in university bookstore, among other places),

Virginia Klenk, *Understanding Symbolic Logic* (5th Ed.)

## Requirements

Again, students are responsible for all material that is in the assigned reading and given in lecture.

### Grade Breakdown:

Exam I	25%
Exam II	25%
Final Exam	45%
Participation	5%

Exams: There will be three exams in this course. The first two will be written during regular class meetings. The third will be scheduled during the university's Final Exam period. Students will *not* be permitted to use texts or notes during any of the exams. All exams will be cumulative.

Participation: Students will be assessed on their contributions in class, particularly in discussion sections. The grade will be based on the frequency with which the students provide valuable verbal contributions in class. Such contributions include informed participation in classroom discussions, assisting with the solution of problems before the class, and asking relevant and cogent questions.

Extra-Credit: There will be no extra-credit assignments. Assessment will be exclusively based on the criteria listed above.

## Schedule of Readings

We will cover approximately one chapter per week from the Klenk textbook (taking us through chapter 16 - though additional chapters may be assigned). *This is an approximation.* Reading assignments will be given during class and on the course's Blackboard site. Any readings from sources other than the Klenk textbook will be available on Electronic Reserves on Blackboard.

### Exam Dates:

Except for the final exam, the exam schedule is subject to revision. Any changes will be made at least one week prior to the scheduled exam date. I'll give you plenty of notice of any changes.

- Feb. 22: Exam I
- Mar. 24: Exam II
- Finals Week: Final Exam

## How to Pass this Class

For many students, this class will be quite challenging. To do well, you should:

- (1) Keep up with the reading, having gone through the assigned reading at least once before lecture
- (2) Take good notes during lecture, making note of key concepts and the solution to problems
- (3) ***Work through all of the problems in the assigned reading***
- (4) Ask questions when you do not understand an aspect of the material or the solution to a problem

It will be tempting not to do (3) since I will not be collecting homework. However, for most students, it is absolutely necessary to do the practice problems to pass the class in good standing. The best way to become good at logic is to practice. Also, we will go over many of the problems in lecture and discussion section - it will serve you well to have attempted them in advance.

## Course Policies

Attendance: Attendance in class is mandatory. Students should arrive promptly at the beginning of class with the textbook in hand. Students may miss (2) lectures and (1) discussion section without penalty. Each unexcused absence beyond this will result in the student's *final grade* being reduced by a third of a letter grade. Excuses will be granted only for documented emergencies. Note that arriving late to class or leaving before class has ended will be counted as an absence.

Exam Makeup: No make-up exams will be given in this class unless the student can produce adequate documentation of very exigent circumstances that preclude her/him from meeting the course requirements. Students are required to inform the instructor of any such circumstances at the earliest possible occasion.

Electronic Devices: All electronic devices, including computers and cell phones, are to be turned off before the beginning of class unless special permission has been granted to use a computer. During exams, use of any such devices will be regarded as academic misconduct (i.e. cheating).

Academic Honesty: Acts of academic dishonesty will be dealt with harshly in accordance with Harpur College policies. The **Student Academic Honesty Code** can be found at <http://bulletin.binghamton.edu/integrity.htm>. Cheating during an exam, including any use of cell phones or other electronic devices, will result in a zero for that exam.

Pass/Fail: If you want to take this class **pass/fail**, register accordingly now. I will not sign pass/fail forms mid-semester for students with a grade of C or better. The University Registrar is adamant about not letting students switch to pass/fail or drop after the deadlines have passed.

Final Exam: There is no rescheduling the final. You must take the final on the day assigned. No exceptions.

Grades: Your grades are your responsibility. Final grades are **final** unless a calculation error has been made. There are no incompletes. Asking for consideration or a grade change for reasons unrelated to performance on the exams and participation in discussion (e.g. grade x is needed to graduate, meet a curricular requirement, or continue with extracurricular activities) is inappropriate. Grades are based strictly on performance.

Grading Scale:

A	= 93% or above
A-	= 90 - 92.99 %
B+	= 88 - 89.99 %
B	= 83 - 87.99 %
B-	= 80 - 82.99 %
C+	= 78 - 79.99 %
C	= 73 - 77.99 %
C-	= 70 - 72.99 %
D	= 60 - 69.99%
F	= 59.99% or below