Syllabus Logic (PHIL 2311-001) The University of Texas at Arlington 22 August 2013

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Office Hours: 11:00 to 12:00, TTh

Meetings: 8:00 to 9:20, TTh, 308 Woolf Hall

Description of Course Content: Reasoning—also known as inference—is the process by which conclusions are drawn from premises. Like any other human activity, it can be done well or poorly. The aim of this course is to help you do it better. There are two types of reasoning. In *theoretical* reasoning, one decides what to believe. In *practical* reasoning, one decides what to do. There are two types of study of reasoning. *Empirical* studies seek to understand the processes by which human beings reason (whether theoretically or practically). This is the province of science. *Normative* studies seek to distinguish, in a principled way, between good and bad reasoning. This is the province of logic. Logic is either formal or informal, depending on whether the reasoning being studied is expressed in artificial or natural language. This is a course in formal logic. Accordingly, we will study three artificial languages: categorical logic, propositional logic, and predicate logic. The third of these, predicate logic, combines elements of the first two, and is therefore more powerful than either of them alone.

Student Learning Outcomes: Students who study properly and attend all classes will be able to (1) define important logical terms, such as "argument," "premise," "conclusion," "deduction," "induction," "validity," "truth," and "soundness"; (2) describe the various properties of the four standard-form categorical propositions; (3) use truth tables to classify propositions, compare propositions, and test arguments for validity; (4) construct and evaluate proofs in propositional logic; and (5) construct and evaluate proofs in predicate logic.

Required Textbooks and Other Course Materials: Stan Baronett, *Logic: An Emphasis on Formal Logic*, 2d ed. (New York: Oxford University Press, 2013), ISBN 978-0-19-994126-1. From time to time, I will post additional materials on the course blog. You are responsible for all such postings, so print and study them as they appear.

Descriptions of Major Assignments and Examinations: (1) A 75-minute, in-class examination, which constitutes one-fourth of your grade. This examination will be given during class on Tuesday, 24 September. (2) A 75-minute, in-class, noncomprehensive examination, which constitutes one-fourth of your grade. This examination will be given during class on Tuesday, 29 October. (3) A 75-minute, inclass, noncomprehensive examination, which constitutes one-fourth of your grade. This examination will be given between 8:00 and 9:15 AM on Tuesday, 10 December, which is the first 75 minutes of our regularly scheduled final-examination period. (The examination will end at 9:15 sharp, so don't be late.) (4) Classroom attendance, which constitutes one-fourth of your grade. (See below for details.) The aim of the examinations is to test the breadth and depth of your knowledge and skill. You are responsible for *all* the readings, handouts (if any), blog posts, lectures, and discussions (yes, discussions). I do not duplicate lectures in my office or provide notes to students; nor do I allow audio or video recording of

my lectures. If you miss a class, you must ask another student for assistance. I *strongly* recommend that you find a study partner the first week of class and meet regularly during the semester to go over the material. I do not give quizzes, assign homework (though homework is essential to doing well), or permit extra credit. There are no early examinations. Makeup examinations are given only for the first and second examinations and only in emergencies. All emergencies must be documented (for example, by a note from a physician). I, as your instructor, am the arbiter of what constitutes an emergency, and there is no appeal from my decision. If you miss the final examination, you will receive a grade of F for the course. There are no exceptions to this rule.

Readings: We will read and discuss the material in the following order:

- Chapter 1, What Logic Studies (Skip Sections C and G)
- Chapter 5, Categorical Propositions (Skip Sections E through I)
- Chapter 7, Propositional Logic
- Chapter 8, Natural Deduction
- Chapter 9, Predicate Logic

Attendance: Each student is allowed to miss two of the 26 classes (I do not count the first day of class [22 August] or the two midterm examination days) before it begins to cut into your grade. Here is a chart:

Classes Attended (of 26)	Attendance	Score
24 through 26	100.0	
23	95.8	
22	91.6	
21	87.5	
20	83.3	
19	79.1	
18	75.0	
17	70.8	
16	66.6	
15	62.5	
14	58.3	
13	54.1	
0 through 12	50.0	

There is no point in offering excuses or explanations for missed classes, so please don't offer any. My policy is not that you are allowed two *unexcused* absences; it is that you are allowed two *absences*. If you expect attendance to be a problem, do not take the course. If attendance *becomes* a problem, you may wish to drop the course rather than receive a poor or failing grade. The last drop day of the semester is Wednesday, 30 October.

Grading: The maximum score on each of the three examinations is 100 points. At the end of the semester, I will add your three examination scores to your attendance score (see the chart above) and divide by four (to reflect the equal weighting). I will assign grades on the basis of a 10% scale, which means that a final score of 90 or above is an A, 80 to 89.9 a B, and so on. In principle, everyone can receive an A. In principle, everyone can receive an F.

What follows is university boilerplate.

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional nine hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for examinations, etc.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if he or she does not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/ses/fao).

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and the letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers,

developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at (817) 272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located near the end of the hallway. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.