Syllabus¹ Logic (PHIL 2311-001) The University of Texas at Arlington (UTA) 25 August 2016

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Office Hours: 11:00 to 12:00, TTh²

Meetings: 8:00 to 9:20, TTh, 207 Preston Hall

Course Description: Logic is the science (study) of validity, which is a property of arguments. Some arguments possess this (desirable) property and some do not. Those that possess it are said to be *valid*. Those that do not possess it are said to be *invalid*. The aim of this course is to develop techniques for distinguishing between valid and invalid arguments. We will do this for three types of logic:

- Categorical (the logic of classes or categories).
- Propositional (the logic of propositions).
- Predicate (the logic of predicates).

Here are examples of valid and invalid arguments for each type:

	Valid Argument	Invalid Argument
Categorical	No dogs are beagles.	All dogs are animals.
	All animals are dogs.	No chairs are dogs.
	∴ No animals are beagles.	∴ No chairs are animals.
Propositional	If birds swim, then fish fly.	If birds fly, then fish swim.
	Birds swim.	Fish swim.
	∴ Fish fly.	∴ Birds fly.
Predicate	Everything is gray.	Not everything is red.
	∴ The sun is gray.	∴ Nothing is red.

¹ A syllabus is "the program or outline of a course of study, teaching, etc." *The Oxford American Dictionary and Language Guide* (1999).

² If you can't make it to my office during office hours, don't worry. We can communicate by e-mail. Anything that can be said in my office, face to face, can be said by e-mail, which has the added benefit of being a written medium. (Writing tends to be more thoughtful than speech, and it doesn't require synchronization of schedules.)

There are no prerequisites for the course. Students who wish to study informal logic or "critical thinking" should take Fundamentals of Reasoning (PHIL 1301). The two courses may be taken in any order.

Readings: There is no textbook. All course materials are available free of charge (except for the paper on which to print them) from the course blog, which is accessible from any Internet-connected computer. Each student is responsible for locating and printing these materials. (See the document entitled "Course Outline" for details; it is incorporated herein by reference.) Bring the course materials to class with you, just as you would a textbook.

Examinations: There are four course requirements:

- 1. An in-class examination consisting of 10 true-false exercises (one point each) and 30 multiple-choice exercises (three points each), which constitutes 30% of your grade. This examination will be given during class on Tuesday, 27 September.
- 2. A noncomprehensive in-class examination consisting of 10 true-false exercises (one point each) and 30 multiple-choice exercises (three points each), which constitutes 30% of your grade. This examination will be given during class on Tuesday, 1 November.
- 3. A noncomprehensive in-class examination consisting of 10 true-false exercises (one point each) and 30 multiple-choice exercises (three points each), which constitutes 30% of your grade. This examination will be given between 8:00 and 9:15 AM (the first 75 minutes of our final-examination period) on Tuesday, 13 December.
- 4. Classroom attendance, which constitutes 10% of your grade. (See below for details.)

The purpose of the examinations is to test the breadth and depth of your knowledge and skill. You are responsible for all the readings, paper 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 (unless required by law under the Americans with Disabilities Act). If you miss a class, your only recourse is to ask another student for assistance. I *strongly* recommend that you find (make) a study partner the

first week of class and meet regularly with this partner during the semester to go over the course material. I do not give quizzes, assign homework, or permit extra credit.

Attendance Policy: You are allowed to miss two of the 26 classes (I do not count the first day of class on 25 August or the two in-semester examination days) before it begins to cut into your grade. Here is a table of scores:

Classes Attended (of 26)	Attendance Score	
24 through 26	100	
23	96	
22	92	
21	88	
20	83	
19	79	
18	75	
17	71	
16	67	
15	62	
14	58	
13	54	
12	50	
11	46	
10	42	
09	38	
08	33	
07	29	
06	25	
05	21	
04	17	
03	13	\neg
02	08	
01	04	
00	00	

Please do not attempt to explain, excuse, or justify an absence. 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. (The last day on which to drop is Wednesday, 2 November.) If you leave the classroom without signing the attendance sheet, you will not be allowed to sign it later, for obvious reasons. Please do not ask me to add up your days of attendance (or, conversely, your absences). I will perform this task only once, at the end of the semester, immediately prior to calculating grades.

Grading Procedure: The maximum score on each of the three examinations is 100. The maximum attendance score is 100. I will assign grades on the basis of a 10% scale, which means that a final score of 90 or higher is an A, anything in the 80's a B, and so forth.³ Here is an example. Suppose a student receives scores of 82, 74, and 84 on the three examinations and a score of 75 for attendance. Here is the calculation:

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82 x .3 = 24.6
74 x .3 = 22.2
84 x .3 = 25.2
75 x .1 = 07.5
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79.5
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This student would receive a C in the course. Note that the student's poor attendance (eight absences instead of the allowed two) cost him or her a grade, for the three examination scores average 80.

Student Learning Outcomes: Students who (1) read the course material carefully (preferably more than once), (2) attend all classes, (3) listen to the lectures attentively, (4) make good notes, (5) participate in classroom discussions, and (6) study properly (preferably with one or more other students) 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 (and relations between) the four standard-form categorical propositions; (3) use truth tables to classify propositions, compare propositions, and test arguments for validity (in propositional logic); (4) construct and evaluate proofs in propositional logic; and (5) construct and evaluate proofs in predicate logic.

What Follows Is University Boilerplate⁴

 $^{^3}$ UTA describes a grade of A as "Excellent," a grade of B as "Good," a grade of C as "Fair," a grade of D as "Passing, Below Average," and a grade of F as "Failure." See the section entitled "Grades and Grading Policies" in the University Catalog.

⁴ "Boilerplate" is a legal term. It means "Language which is used commonly in documents having a definite meaning in the same context without variation; used to describe standard language in a legal document that is identical in instruments of a like nature." *Black's Law Dictionary*, 5th ed. (1979).

Attendance: At UTA, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I have established the attendance policy set out above. However, while UTA does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the university have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UTA instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

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 they do 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, con-Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

Disability Accommodations: UTA is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAAA), and Section 504 of the Rehabilitation Act. All instructors at UTA are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the Office for Students with Disabilities (OSD).

Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting the Office for Students with Disabilities (OSD) (www.uta.edu/disability) or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability. Counseling and Psychological Services (CAPS) (www.uta.edu/caps/) or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

Non-Discrimination Policy: UTA does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.

Title IX Policy: UTA is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.

Academic Integrity: Students enrolled all UTA courses are expected to adhere to the UTA 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.

UTA faculty members may employ the Honor Code in their courses by 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 the 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. Additional information is available at https://www.uta.edu/conduct/.

Electronic Communication: UTA 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/maymail.php.

Student Feedback Survey: At the end of each term, students enrolled in face-to-face and online classes categorized as "lecture," "seminar," or "laboratory" are directed to complete an online 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 via the SFS database is aggregated with that of other students enrolled in the course. Students' anonymity will be protected to the extent that the law allows. UTA's effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit http://www.uta.edu/sfs.

Final Review Week: For semester-long courses, 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. 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 individuals with disabilities.

Student Support Services: UTA 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 http://www.uta.edu/universitycollege/resources/index.php.