

Logic  
PHIL 2310-001 (CRN 50949)  
MWF 9:00 am - 9:50 am, Eng/Phil 150  
Texas Tech University, Spring 2014

**Instructor:** Mr. Andrew L. Smith  
**Office:** Eng/Phil 254  
**Office Hours:** MW 10:00 - 11:00 and by appointment  
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**Course Description:** This course focuses on the evaluation of arguments through the use of two systems of logic. To this end, students will learn about the notions of syntax, transcription, semantics, and natural deduction as presented within these two systems, as well as how they can use the formal tools provided by these systems to evaluate arguments.

This course partially satisfies the Texas Tech University core curriculum requirement in mathematics (in conjunction with a mathematics course). The objective of the mathematics and logic component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real world problems. Students graduating from Texas Tech University should be able to demonstrate the ability to apply quantitative and logical skills to solve problems.

**Learning Outcomes:** The ability to use mathematical and logical reasoning to evaluate the validity of an argument, as well as the development of critical thinking skills in general.

**Methods of Assessment:** Ten homework assignments and four in-class exams.

**Prerequisites:** None.

**Textbook:** *A Modern Formal Logic Primer, vol. I & II* by Paul Teller. The texts are available as PDFs for **free** at <http://tellerprimer.ucdavis.edu>. I recommend that you download all of the files at the beginning of the course, so that you won't run into any problems if the site should go down for some reason.

**Grading:**

- Homework: 25%
- Four exams: 75%

Grades will be assigned according to the following chart:

<60: F	70-72.9: C-	83-86.9: B
60-62.9: D-	73-76.9: C	87-89.9: B+
63-66.9: D	77-79.9: C+	90-92.9: A-
67-69.9: D+	80-82.9: B-	>93: A

**Homework Policies:**

1. Homework is due on Fridays at the beginning of class (unless stated otherwise in class and/or through email).

2. Please make sure your assignments are neat and legible. Please staple your assignments; should a student fail to do this, I am not responsible for the loss of any unsecured pages.
3. Late homework is not accepted, nor is homework accepted electronically.
4. Homework is graded on a  $\checkmark/\times$  system ( $\checkmark$ : full credit;  $\times$ : no credit). To receive credit for an assignment, the student must complete all of the problems in accordance with the directions. Failure to complete the assignment or follow the directions results in no credit.
5. No homework may be "made up" or resubmitted for credit.

#### **Test Policies:**

1. Tests One, Two, and Three are on the Friday of the week in which they are scheduled.
2. The final (Test Four) is comprehensive, but about half of it covers material after Test Three.
3. Anyone who passes the final with a D- (60%) or better will have their lowest test score dropped.
4. No make-up exams are given unless approved by me *before* the original test date, and even then, only in extreme cases. (For instance, in the case of a serious and documented illness.)
5. All students must take the final exam at the scheduled time. *Do not* take this course if you cannot take the exam at that time. (When is the final? See the schedule on the last page.)

#### **Classroom Policies:**

1. In short, please do not engage in disruptive, distracting, or disrespectful behavior. For example, asking questions about the course material is welcome and encouraged, but asking questions which are obviously irrelevant is not, as this is a type of disruptive behavior. Use common sense and think before you act. The following, non-exhaustive set of policies are some particularly important elaborations on this general requirement to refrain from such behavior.
2. Please do not use electronics during class. Cell phones, in particular, should be put away and silent.
3. Please come to class on time, and please stay the entire time. If you have to leave early, please let me know before class begins.
4. Please do not begin packing up your belongings before the end of class.
5. Please raise your hand and wait for me to call on you if you have a question.
6. Disruptive, distracting, or disrespectful behavior constitutes grounds for dismissal from class for the day. Severe or repeated violations will result in dismissal from the course and referral to Student Judicial Programs (SJP).

#### **Other Things:**

- Keep your graded assignments and tests until the end of the semester.
- Find someone in the class from whom you can get notes, etc., in case you miss a day.

**Email:** Be sure to check your TTU email for announcements and assignments. If you want to email me, please use your TTU email address.

**Course Material, Attendance, and Mastering Course Material:** Official course material is the material covered during class. Further, I do not email slides (I don't have any to email in the first place), make available my notes, or create "study guides." Therefore, if you want to pass the course, it is important to attend class regularly, read the assigned reading before class, take thorough notes, work hard on the homework assignments, and come to office hours when you have questions.

**Academic Dishonesty:** Academic dishonesty is taken seriously by both the university and myself. Any academic dishonesty will result in failure of the course and referral to Student Judicial Programs (SJP). For more on academic integrity and academic dishonesty, look through the resources made available by Texas Tech at <http://www.depts.ttu.edu/studentjudicialprograms/academicinteg.php/>. If you have questions, speak with me during office hours or send me an email.

**Students with Disabilities (OP 34.22):**

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

For more information, see <http://www.depts.ttu.edu/students/sds/>.

**Observance of Religious Holy Days (OP 34.19):**

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

**Preliminary Schedule (subject to change):**

<b>Week</b>	<b>Topics</b>	<b>Reading</b>	<b>Events</b>
1 (Jan 15-17)	Intro to Course, Arguments, SL syntax	v.I ch. 1	–
2 (Jan 22-24)	SL syntax, SL Transcription	v.I ch. 1-2	HW 1
3 (Jan 27-31)	Transcription, SL Semantics, Important Concepts	v.I ch. 2, 3, 4 §1-3	HW 2
4 (Feb 3-7)	Catch Up and Review	–	HW 3, Test 1
5 (Feb 10-14)	Conditionals and Biconditionals	v.I ch. 4 §4-5	–
6 (Feb 17-21)	SL Derivations	v.I ch. 5	HW 4
7 (Feb 24-28)	SL Derivations	v.I ch. 6, 7 §1, 3	HW 5
8 (Mar 3-7)	Catch Up and Review	–	HW 6, Test 2
9 (Mar 10-14)	Advanced SL Derivations	v.I ch. 7 §2-4	–
10 (Mar 17-21)	No Class - Spring Break	–	–
11 (Mar 24-28)	Advanced SL Derivations, Intro to PL, PL Syntax	v.II ch. 1	HW 7
12 (Mar 31-Apr 4)	More on Quantifiers, PL Transcription	v.II ch. 3 §1-2, ch. 4	HW 8
13 (Apr 7-11)	Catch Up and Review	–	HW 9, Test 3
14 (Apr 14-18)	PL Semantics	v.II ch. 2, ch. 3 §3-4	–
15 (Apr 23-25)	PL Semantics, PL Derivations	v.II ch. 2, ch. 3 §3-4, ch.5	–
16 (Apr 28-May 2)	PL Derivations	v.II ch. 6	HW 10
17 (May 5)	Catch Up and Review	–	–

**Final exam: Thursday, May 8, 7:30 am - 10:00 am, Eng/Phil 150**