PHIL 2303.002: Introduction to Logic
Fall 2017
Time: MWF 12:00-12:50
Location: CI-128

Instructor: Ana-Maria Andrei, PhD
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Course Description
The course introduces you to some basic concepts and methods employed to analyze and evaluate arguments. We will look at several logical systems (e.g., syllogistic logic, propositional logic and predicate logic), and will examine their relative strengths and weaknesses. We will practice employing these formal tools to identify, analyze and evaluate a wide variety of arguments. Although time constraints will not allow us to focus on standardized tests such as the LSAT, GMAT or GRE, the skills acquired by studying logic do help candidates get good scores on such tests. More generally, developing one’s ability to think logically is a precondition of success in most domains of inquiry, as well as in everyday communication.

Student Learning Outcomes
Upon completion of the course, you should be able to:
- define central logical terms such as argument, validity, soundness, induction, deduction, fallacy, etc.
- translate natural language sentences into the relevant formal language
- test the validity of arguments using the techniques required by the relevant logical system (e.g., Venn diagram, truth tables, proofs, etc.)
- be able to apply the logical tools introduced in the course to analyze and evaluate arguments from everyday sources

Required Texts

Course Requirements
- in-class and homework assignments;
- five quizzes on the following dates: 09/18; 10/04; 11/03; 11/17; 12/01 (quizzes typically include true/false, multiple choice and short answer questions pertaining to the relevant chapters; the lowest quiz score will be dropped);
- two exams (the exams contain the same kinds of questions as the quizzes, but are longer and cover more material).

Grading Policy
Grade breakdown:
midterm: 25%
final: 25%
quizzes: 40%
in-class and homework assignments: 10%
Final letter grades will be assigned based on the following percentages:
Over 90% = A
80 – 89% = B
70 – 79% = C
60 – 69% = D
Below 60 = F

**Attendance and late work policy**
Missing more than 4 classes will negatively impact your final grade. No late work will be accepted, unless due to extreme circumstances.

**Classroom etiquette**
Students are expected to come to class on time and switch off cell phones before entering the classroom. Please do not read newspapers, use your laptop or phone in a disruptive fashion, sleep or distract your fellow students in any other way. You should be attentive, take notes, participate in classroom activities as required and be courteous to your classmates and the instructor. No recording of any kind is permitted in this course unless recommended by the Disability Resource Center.

**Plagiarism**
Plagiarism is the presentation of work as one’s own that was in fact produced by another author (e.g., the submission of a paper as one’s own work, when it was written by someone else, or the submission of a portion of a paper written by another author, without citing the source of the material). University policy strictly prohibits plagiarism. Plagiarized work will be assigned a grade of “F.”

**Academic Advising**
The College of Liberal Arts requires that students meet with an Academic Advisor as soon as they are ready to declare a major. Degree plans are prepared in the CLA Academic Advising Center. The University uses an online Degree Audit system. Any amendment must be approved by the Department Chair and the Office of the Dean. All courses and requirements specified in the final degree plan audit must be completed before a degree will be granted. The CLA Academic Advising Office is located in Driftwood #203. For more information please call 361-825-3466, or log onto [http://www.tamucc.edu/advising/](http://www.tamucc.edu/advising/).

**Disability Services**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall, Room #116. If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

**Grade Appeal Process**
As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures (available at [http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.C2.01_student_grade_appeal_procedure.pdf](http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.C2.01_student_grade_appeal_procedure.pdf)). For complete details on the process of submitting a formal grade appeal, please visit the College of Liberal Arts website, [http://cla.tamucc.edu/about/student-resources.html](http://cla.tamucc.edu/about/student-resources.html). For assistance and/or guidance in the grade appeal process, students may contact the Associate Dean’s Office.
Course Schedule

This is a tentative schedule. For your benefit, we will be flexible about what topics we discuss, exactly, and when. It is your responsibility to stay up to date with schedule revisions.

Week 1 (August 28, 30; September 1) **Introduction**
Week 2 (September 6, 8) **Basic concepts** (chapter 1)
  - Recognizing and diagramming arguments
  - Validity and soundness
Week 3 (September 11, 13, 15)
  - Validity and soundness
  - Proving invalidity
Week 4 (September 18, 20, 22) **Fallacies** (chapter 3)
  - Types of fallacies
  - Fallacies in ordinary language
Week 5 (September 25, 27, 29) **Categorical propositions** (chapter 4)
  - Types of categorical propositions
  - The square of opposition; Venn diagrams
Week 6 (October 2, 4, 6) **Syllogisms** (chapter 5)
  - Syllogisms: standard form, mood and figure
  - Venn diagrams for syllogisms
Week 7 (October 9, 11, 13) **Propositional logic** (chapter 6)
  - Truth functions
  - Translation exercises
Week 8 (October 16, 18, 20)
  - Translation exercises, cont’d
  - Review Session
  - Midterm exam
Week 9 (October 23, 25, 27) **Propositional logic** (chapter 6), cont’d
  - Truth tables
  - Argument forms and fallacies
Week 10 (October 30; November 1, 3) **Natural deduction** (chapter 7)
  - Rules of implication I
  - Proofs in propositional logic
Week 11 (November 6, 8, 10) **Natural deduction** (chapter 7), cont’d
  - Rules of implication II
  - Proofs in propositional logic
Week 12 (November 13, 15, 17) **Natural deduction** (chapter 7), cont’d; **Predicate logic** (chapter 8)
  - Proofs in propositional logic
  - Predicate logic: symbols; translation exercises
Week 13 (November 20) **Predicate logic** (chapter 8), cont’d
  - Rules of inference
  - Proofs in predicate logic
Week 14 (November 27, 29; December 1) **Predicate logic** (chapter 8), cont’d; **Induction** (chapter 9)
  - Proofs in predicate logic
  - Analogy and legal and moral reasoning
Week 15 (December 4, 6) **Induction** (chapter 9), cont’d
[The final exam will be held on the assigned date.]