PHIL 2303.002: Introduction to Logic
Spring 2018
Time: MWF 11:00-11:50
Location: ECDC-219c

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 explicitly on standardized tests such as the LSAT, GMAT or GRE, the skills acquired by studying logic 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: 02/05, 02/19, 04/02, 04/13 and 04/25 (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.”

**Grade Appeals**
As stated in University Procedure 13.02.99.C2.03, Student Grade Appeals, 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.C2.03, Student Grade Appeals.
These documents are accessible online at: [http://academicaffairs.tamucc.edu/rules_procedures/index.html](http://academicaffairs.tamucc.edu/rules_procedures/index.html). For assistance and/or guidance in the grade appeal process, students may contact the Associate Dean’s office in the college in which the course is taught. 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).

**Disabilities Accommodation**
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 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.

**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.
Dropping a Class
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. April 6th, 2018 is the last day to drop a class with an automatic grade of “W” this term.

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 (01/17, 01/19) Introduction
Week 2 (01/22, 01/24, 01/26) Basic concepts (chapter 1)
  Deduction and induction
  Validity and soundness
Week 3 (01/29, 01/31, 02/02)
  Proving invalidity
  Extended arguments
Week 4 (02/05, 02/07, 02/09) Fallacies (chapter 3)
  Types of fallacies
  Fallacies in ordinary language
Week 5 (02/12, 02/14, 02/16) Categorical propositions (chapter 4)
  Types of categorical propositions
  The square of opposition
  Venn diagrams
Week 6 (02/19, 02/21, 02/23) Categorical Syllogisms (chapter 5)
  Syllogisms: standard form, mood and figure
  Venn diagrams for syllogisms
Week 7 (02/26, 02/28, 03/02) Propositional logic (chapter 6)
  Truth functions
  Translation exercises
Week 8 (03/05, 03/07, 03/09) Propositional logic (chapter 6), cont’d
  Review Session
  Midterm exam
  Translation exercises, cont’d

[spring break]

Week 9 (03/19, 03/21, 03/23) Propositional logic (chapter 6), cont’d
  Truth tables
  Argument forms and fallacies
Week 10 (03/26, 03/28, 03/30) Natural deduction (chapter 7)
  Rules of implication I
  Rules of implication II
Week 11 (04/02, 04/04, 04/06) Natural deduction (chapter 7)
  Rules of replacement
  Conditional proof
Week 12 (04/09, 04/11, 04/13) Natural deduction (chapter 7), cont’d; Predicate logic (chapter 8)
Natural deduction: further exercises
Predicate logic: symbols; translation exercises

Week 13 (04/16, 04/18, 04/20) Predicate logic (chapter 8), cont’d
Predicate logic: symbols; translation exercises
Proofs in predicate logic

Week 14 (04/23, 04/25, 04/27) Induction
Analogy and legal and moral reasoning (chapter 9)

Week 15 (04/30) Final Review

[The final exam will be held on the assigned date.]