Phil/Comm 110: Logic and Critical Thinking
Spring 2009
University of Arizona
Course Syllabus

Course Time and Location: MWF, 8:00 – 8:50 AM, Harvill 102
Instructor: Mike Bruno
Email: mbruno@u.arizona.edu, michael.bruno@gmail.com
Course Website: There is a D2L site for this course, which can be accessed through http://d2l.arizona.edu. The syllabus can also be found at http://www.u.arizona.edu/~mbruno/logic.pdf.
Office hours: Wednesdays, 9:30 AM – 12:30 PM
Office: 138 Social Sciences
Mailbox: 213 Social Sciences

Course Description: This course will cover three main topics. The first part of the course will examine the nature of arguments and the role definitions play in evaluating arguments. The second part will cover propositional logic. Syntax and truth-tables will be taught, but emphasize will be placed on learning how to do proofs via natural deduction. The third part will look at statistical reasoning, probability, and induction.

Grades: Grades will be determined on the basis of the following factors.
  - Syllabus Exam (1%)
  - Exam on Arguments and Definitions (30%)
  - Exam on Natural Deduction (30%)
  - Exam on Probability and Induction (30%)
  - Cumulative Final Exam (9%)

DRC: Students with special needs who are registered with the S.A.L.T. Center or the Disability Resource Center (http://drc.arizona.edu) must submit appropriate documentation to the instructor if they plan on requesting special accommodations.

Academic Honesty: Academic dishonesty of any form will be punished in accordance with University guidelines, available at: http://catalog.arizona.edu/policies/974/acacode.htm.

Classroom Conduct: Students will be expected to conduct themselves in a professional manner in the classroom. This includes being respectful to both the instructor and fellow students. Threatening behavior of any kind by any student will be dealt with in accordance with the University policies, available at http://policy.web.arizona.edu/~policy/threaten.shtml. Note that conducting yourself in a professional manner also includes refraining from using cell phones, listening to i-pods, reading newspapers, etc.

Class Schedule:

  First Day: January 14
  Martin Luther King Day: January 19
  Spring Break: March 14 - 22
  Last Day: May 6

  First Exam: February 16
  Second Exam: March 27
  Third Exam: May 1
  Final Exam: May 13, 8:00 – 10:00 AM

Homework: Homework will be assigned in class and will be posted on the D2L site. Some days of class will be dedicated to reviewing homework assignments. Please bring your textbook to class, especially on days we review homework. You will be required to read and do homework problems from the following sections of the book.

Arguments and Definitions

1.1 – 1.5 Basic Concepts
Arguments, Premises, and Conclusions
Recognizing Arguments
Deduction and Induction
Validity, Truth, Soundness, Strength, Cogency
Argument Forms: Proving Invalidity

2.1 – 2.3 Language: Meaning and Definition
Varieties of Meaning
The Intension and Extension of Terms
Definitions and Their Purposes

Natural Deduction

6.1 – 6.4 Propositional Logic
Symbols and Translation
Truth: Functions
Truth Tables for Propositions
Truth Tables for Arguments

7.1 – 7.4 Natural Deduction in Propositional Logic
Rules of Implication I
Rules of Implication II
Rules of Replacement I
Rules of Replacement II

Probability and Induction

11.1 – 11.2 Probability
12.1 – 12.5 Statistical Reasoning