PHIL 211 Symbolic Logic
T TR 3b (10:20 AM - 11:30 PM)
Classroom: Zinzendorf 103
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              W 11:00 AM-12:00 PM

## Text

*The Power of Logic* (4th Edition) Editors Frances Howard-Snyder, Daniel Howard Snyder and Ryan Wasserman (New York: McGraw-Hill, 2009)

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## Course Description:

In-depth analysis of various types of arguments, including those in knowledge theory and ethics, which relate to professional and social issues; verbal puzzles; categorizing schemas.

## Learning Outcomes/Competency

The following outcomes are expected of students who complete this course:
1)- Understand the nature of reasoning.
2)- Articulate his/her thoughts in a logical and clear fashion.
3)- Recognize fallacies
4)- Construct good arguments.
5)- Evaluate deductive arguments.
6)- Evaluate inductive arguments.

## Topics:

1)- Basic Logical Concepts
2)- Identifying Arguments
3)- Informal Fallacies
5)- Categorical Logic
6)- Statement Logic
7)- Statement Logic Proofs

## Learning Methods:

Readings, lectures, discussions, exercises, and exams.

**Attendance Policy**:
Attendance is mandatory. Students will lose 1 point for every unexcused absence up to a possible 5 points. Students can make up lost points in unexcused absences by actively participating in class discussions. Unexcused absences included only the following: (1) sickness with a doctor's note, (2) death in the family or (3) some other extraordinary event.

**Academic Dishonesty Policy**
See Student Handbook pp. 32 – 38

**Student Behavior**:
See Student Handbook pp. 38 – 40

**Disability**
Students who wish to request accommodations in this class for a disability should contact Mr. Joe Kempfer, Assistant Director of Learning Services for Disability Support, 1307 Main Street (extension 1510). Accommodations cannot be provided until authorization is received from the office of Learning Services.

**Grading/Measures of evaluations:**
Test 1:  February 3          20%
Test 2:  February 22         20%
Test 3: March 22             20%
Test 4: April 7              20%
Test 5: May 5 (8:30 AM)  20%

**Extra Credit**
Students will have the opportunity of earning up to a maximum of 3 extra credit points. Students who attend 3 philosophy club meetings, or other selected meetings with philosophical content (must be approved by professor beforehand), will earn 3 extra credit points. If you only attend 1 or 2 meetings you will receive no extra credit.

A 100-95; A- 94-90; B+ 89-87; B 86-84; B- 83-80; C+ 79-77; C  76-74; C- 73-70; D+ 69-67; D 66-64; D-63-60; F <59

## PROGRAM AND READING ASSIGNMENTS

| DATE | TOPIC | HOME WORK DUE |
|---|---|---|
|  | **BASIC CONCEPTS** |  |
| January 18 | Introduction |  |
| January 20 | 1.1 Validity and Soundness |  |

| | | 1.1(A) All; 1.1(B) All 1.1(C) All; 1.1(D) All |
|---|---|---|
| January 25 | 1.2 Forms and Validity Some Logic | 1.1(A) All; 1.1(B) All 1.1(C) All; 1.1(D) All |
| January 27 | 1.3 Counterexamples and invalidity 1.4 Strength and Cogency | 1.2(A) 1-30; 1.2(B) 1-15 1.2(C) 1-15; 1.2(D) 1-15 |
| February 1 | Review | 1.3(A) 1-10; 1.3(B) 1-10; 1.4(A) All; 1.4(B) All; 1.4(C) All |
| February 3 | **TEST 1** | |
| | **IDENTIFYING ARGUMENTS** | |
| February 8 | 2.1 Arguments and Nonarguments 2.2 Well-Crafted Arguments | |
| | **INFORMAL FALLACIES** | |
| February 10 | 4.1 Fallacies of Irrelevance 4.2 Fallacies of Ambiguity | 2.1(A) 1-25; 2.1(B) 1-10 2.2(A)1-10 |
| February 15 | 4.3 Fallacies Involving Unwarranted Assumptions | 4.1(A) 1-20; 4.1(B) All; 4.2(A) All |
| February 17 | Review | 4.3(a) All |
| February 22 | **TEST 2** | |
| February 24 | **No Class** | |
| | **CATEGORICAL LOGIC** | |
| March 1 | 5.1 Standard Forms of Categorical Statements 5.2 Traditional Square of Opposition 5.3 Further Immediate Inferences | |
| | **CATEGORICAL LOGIC: SYLLOGISM** | |

| March 3 | 6.1 Standard Form, Mood, and Figure<br>6.2 Venn Diagrams and Categorical Statements<br>6.3 Venn Diagrams and Categorical Syllogisms | 5.1(A) 1-10; 5.2(A) 1-15<br>5.2(B) 1-10; 5.2(C) 1-4 |
|---|---|---|
| March 8 | **Recess** | |
| March 10 | **Recess** | |
| March 15 | 6.4 Modern Square of Opposition | 6.1(A) 1-10; 6.1(B) 1-15<br>6.3(A) 1-10 |
| March 17 | Review | 6.4(A) 1-5 |
| March 22 | **TEST 3** | |
| | **STATEMENT LOGIC** | |
| March 24 | 7.1 Symbolizing English Arguments<br>7.2 Truth Tables | |
| March 29 | 7.3 Truth Tables and Arguments | 7.1(A) 1-20; 7.1(C) 1-10<br>7.1(D) 1-10; 7.2(A) 1-25 |
| March 31 | 7.5 Logically Significant Categories | 7.3(A,B) 1-20 |
| April 5 | Review | 7.5 (A,B,C, 1-10) |
| April 7 | **TEST 4** | |
| | **STATEMENT LOGIC: PROOFS** | |
| April 12 | 8.1 Implicational Rules of Inference | |
| April 14 | 8.2 Five Equivalence Rules<br>8.3 Five More Equivalent Rules | 8.1(A) 1-10; 8.1(C) 1-20<br>8.1(D) 1-25 |
| | | |

| April 19 | 8.4 Conditional Proofs<br>8.5 *Reductio ad Absurdum* | 8.2(C) 1-10; 8.2(D) 1-10<br>8.3(C) 1-10; 8.3(D) 1-10 |
|---|---|---|
| April 21 | 8.6 Proving Theorems | 8.4(A) 1-20; 8.5(A) 1-10 |
| April 26 | 8.6 Proving Theorems (continued) | 8.6(A) 1-20; 8.6(B)<br>Challenging Theorems |
| April 28 | Review | |
| May 5<br>Thursday<br>8:30 AM | **TEST 5** | |