Introductory Logic
Philosophy 120-010
Summer 2009
Prof. Brandon C. Look

Meeting Place: CB 207
Meeting Time: MTWR 10:00-12:30
Instructor’s Office: 1401 POT
Office Hours: M-Th 8:30-9:30
Office Phone: 7-3071
E-mail: look@uky.edu
Website: http://www.uky.edu/~look/120Logic.htm

Course Description:
The aim of this course is to expose students to the science of logic, that is, to the branch of philosophy concerned with the analysis of arguments. We will concern ourselves, first, with the recognition of arguments and with basic logical concepts, such as truth, validity, soundness and cogency. We will study informal fallacies so that students can easily recognize and diagnose the logical errors and rhetorical tricks of everyday life. We will then study categorical propositions and syllogisms, how to translate ordinary language statements into such propositions, and how to analyze the validity of these syllogisms. Finally, we will study modern propositional logic.

Learning Outcomes:
By the end of the course, you should be able to express yourself more clearly and precisely. You should also be able to identify good and bad arguments in various contexts. And you should be able to use logical and philosophical terms – such as ‘truth’, ‘validity’, ‘soundness’ – correctly and be able to drop the occasional term or phrase – such as ‘ignoratio elenchii’, ‘red herring’, ‘tu quoque’, ‘amphiboly’ – for maximum effect. More importantly, you should be able to give a formal demonstration of the validity of arguments.

Course Format:
I will spend class time in the following way: part of each class period will be devoted to going through the assigned homework and answering any questions students may have concerning other exercises; and part of each class period will be devoted to a lecture concerning and presentation of new material. Note: everything that is in the text (e.g., every exercise) is fair game for the exams.

Course Requirements and Expectations:
- Logic is cumulative. And this class will come at you fast. Therefore, I expect you to attend class every day and be prepared with questions from exercises.
- I expect you to do at least all the starred exercises in the book.
- In order for you to have more practice with logic problems, I will ask you occasionally to do exercises on the board in front of class. I expect you (a) to be willing to do so and (b) to treat your classmates with respect when you are not in front of the class.
Grading:

- **Class participation will count for 20% of the final grade.** Students who attend every class will get 100 points; students who miss or are late to one class (without an excuse) will receive 90 points; students who miss or are late to two classes will receive 80 points; and so on.
- There will be **one mid-term exam**, which will count for **30% of the final grade**.
- There will also be a **final exam**. It will count for the remaining **50% of the final grade**. The final exam will be cumulative – though more emphasis will be placed on the material from Chapters 6 and 7.

Class Policies:

- There will be no make-up exams unless you have a documented excuse from a legitimate authority (doctor, lawyer, etc.).
- No incompletes will be given in this class, except in *extraordinary* circumstances.
- All work must be the student’s own. If a student is caught cheating, he or she will, according to University Regulations, be failed for the course and possibly expelled from the University.
- Students will not be permitted to use laptops in class.

Required Text:

Schedule

Week 1
T  5/12  Introduction
   Basic Concepts, 1.1-1.5
       Arguments, Premises, Conclusions
       Recognizing Arguments
       Deduction and Induction
       Validity, Truth, Soundness, Strength, Cogency
       Argument Forms
W  5/13  Informal Fallacies, 3.1-3.3
       Fallacies in General
       Fallacies of Relevance
       Fallacies of Weak Induction
Th 5/14  Informal Fallacies, 3.4-3.5
       Fallacies of Presumption, Ambiguity, and Grammatical Analogy
       Fallacies in Ordinary Language

Week 2
M  5/18  Categorical Propositions, 4.1-4.3
       The Components of Categorical Propositions
       Quality, Quantity, and Distribution
       Venn Diagrams and the Modern Square of Opposition
T  5/19  Categorical Propositions, 4.4-4.6
       Conversion, Obversion, and Contraposition
       The Traditional Square of Opposition
       Venn Diagrams and the Traditional Standpoint
W  5/20  Categorical Syllogisms, 5.1-5.2
       Standard Form, Mood, and Figure
       Venn Diagrams
Th 5/21  Categorical Syllogisms, 5.3-5.6
       Rules and Fallacies
       Reducing the Number of Terms
       Ordinary Language Arguments
       Enthymemes

Week 3
M  5/25  Memorial Day. No Class
T  5/26  Mid-Term Exam
W  5/27  Propositional Logic, 6.1-6.3
       Symbols and Translation
       Truth Functions
       Truth Tables for Propositions
Th 5/28  Propositional Logic, 6.4-6.6
       Truth Tables for Arguments
       Indirect Truth Tables
       Argument Forms and Fallacies
<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Section</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>6/1</td>
<td>Natural Deduction in Propositional Logic, 7.1-7.2</td>
<td>Rules of Implication I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rules of Implication II</td>
</tr>
<tr>
<td>T</td>
<td>6/2</td>
<td>Natural Deduction in Propositional Logic, 7.3-7.4</td>
<td>Rules of Replacement I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rules of Replacement II</td>
</tr>
<tr>
<td>W</td>
<td>6/3</td>
<td>Natural Deduction in Propositional Logic, 7.5</td>
<td>Conditional Proof</td>
</tr>
<tr>
<td>Th</td>
<td>6/4</td>
<td>Natural Deduction in Propositional Logic, 7.6-7.7</td>
<td>Indirect Proof</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Proving Logical Truths</td>
</tr>
<tr>
<td>M</td>
<td>6/8</td>
<td>Final Exam</td>
<td></td>
</tr>
</tbody>
</table>