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. And 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 and predicate logic.

By the end of the course, students should be able to express themselves more clearly and to identify easily good and bad arguments in various contexts.

Course Requirements and Expectations:

- Students are expected to attend class every day and be prepared with questions from exercises. Moreover, students are expected to do at least all the starred exercises in the book.

  Class participation will count for 10% of the final grade. (Students who attend every class will get an “A” (100); students who miss or are late to one class will receive a “B” (85); students who miss or are late to two classes will receive a “C” (75); and so on.

- There will be one mid-term exam, which will count for 40% of the final grade.

- There will also be a final exam. It will count for the remaining 50% of the final grade.

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 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:

- Patrick J. Hurley, A Concise Introduction to Logic, 9th edition, Wadsworth, 2006. (Actually, I ordered the version of this book that was abridged for Prof. Goldberg’s Spring Logic course.)
Schedule

5/8  Introduction  
    Basic Concepts, 1.1-1.2  
    Arguments, Premises, Conclusions  
    Recognizing Arguments

5/9  Basic Concepts, 1.3-1.5  
    Deduction and Induction  
    Validity, Truth, Soundness, Strength, Cogency  
    Argument Forms

5/10 Categorical Propositions, 4.1-4.3  
    The Components of Categorical Propositions  
    Quality, Quantity, and Distribution  
    Venn Diagrams and the Modern Square of Opposition

5/14 Categorical Propositions, 4.4  
    Conversion, Obversion, and Contraposition

5/15 Categorical Propositions, 4.5  
    The Traditional Square of Opposition

5/16 Categorical Propositions, 4.6  
    Venn Diagrams and the Traditional Standpoint

5/17 Categorical Syllogisms, 5.1-5.2  
    Standard Form, Mood, and Figure  
    Venn Diagrams

5/21 Mid-Term Exam

5/22 Propositional Logic, 6.1-6.2  
    Symbols and Translation  
    Truth Functions

5/23 Propositional Logic, 6.3-6.4  
    Truth Tables for Propositions  
    Truth Tables for Arguments

5/24 Propositional Logic, 6.5  
    Indirect Truth Tables

5/28 Memorial Day, No Class

5/29 Natural Deduction in Propositional Logic, 7.1  
    Rules of Implication I

5/30 Natural Deduction in Propositional Logic, 7.2  
    Rules of Implication II

5/31 Natural Deduction in Propositional Logic, 7.3  
    Rules of Replacement I

6/4 Natural Deduction in Propositional Logic, 7.4  
    Rules of Replacement II

6/5 Final Exam