

Syllabus
Philosophy 1504: Language and Logic

Dr. Brian Epstein

Required text: *The Power of Logic*, 3rd edition, by C. Stephen Layman

Web sites:

Power of Logic web tutor – <http://www.poweroflogic.com/cgi/menu.cgi>

Schedule:

Logical Thinking

Week 1: Basic concepts

8/24 General introduction

8/26 Validity, soundness, strength, and cogency 1.1, 1.4

Week 2: Forms and arguments

8/31 Argument forms and conditionals 1.2, 1.3.1

9/2 Famous forms 1.3

Week 3: Identifying arguments

9/7 Definitions and definitional disputes 3.2, 3.3

9/9 Informal fallacies 4.1, 4.2, 4.3

Week 4:

9/14 **Midterm 1**

9/16 No class (Read chapter 5)

Categorical Logic (a.k.a. Aristotelian or Class Logic)

Week 5: Categorical statements

9/21 Introduction to categorical logic and statements 5.1, 5.2

9/23 Immediate inferences 5.3

Week 6: Categorical arguments I

9/28 Venn diagrams 6.2

9/30 Categorical syllogisms (6.1), 6.3

Week 7: Categorical arguments II

10/5 Enthymemes and Sorites 6.5, 6.6

10/7 **Midterm 2**

Statement Logic (a.k.a. Propositional or Sentential Logic)

Week 8: Statements

10/12 Introduction; symbolization 7.1

10/14 Truth tables, tautology and contradiction 7.2, 7.5

Week 9: Arguments and proofs		
10/19	Evaluating arguments and logical equivalence	7.3, 7.5
10/21	Proofs and implication rules	8.1
Week 10: Equivalence rules		
10/26	Five equivalence rules	8.2
10/28	Five more equivalence rules	8.3
Week 11: Simplifying proofs		
11/2	Conditional proof	8.4
11/4	Reductio ad absurdum	8.5
Week 12: More proofs		
11/9	Review of proofs	8.1-8.5
11/11	Midterm 3	
<i>Predicate Logic</i>		
Week 13: Adding predicates to the language		
11/16	Predicates and quantifiers	9.1
11/18	Worlds and demonstrating invalidity	9.2
Thanksgiving 11/22-11/26		
Week 14: Symbolizing complex expressions		
11/30	Relations	9.5
12/2	Identity	9.7
Week 15:		
12/7	Final test	

Grades:

Tests: 70%

Quizzes: 30%

Homework:

- The homework will not be graded. Still, it is very important for you to do the homework, if you hope to learn the material in the course.
- You are encouraged to work on the homework in pairs or small groups, write it up independently, and check each other's work.

Quizzes:

- There will be short in-class quizzes on a weekly or bi-weekly basis. The quizzes will be announced in the previous class session.
- There will be no makeup quizzes for any reason, but your worst quiz grade will be dropped.

Tests / exams:

- There will be four tests over the course of the semester. The final test will concentrate on the last part of the course, but I reserve the right to include material from earlier parts of the course.
- You must take all the exams in order to pass the course.
- Don't skip, forget, sleep through, or otherwise miss the test; you will not be allowed to make it up. Also, don't ask to postpone the test unless there's a true emergency. Failing to be prepared for the test doesn't constitute an emergency.
- The only makeup tests will be in case of a documented illness or other emergency. If you are sick, let me know in advance unless it is a sudden emergency. In any case, medical or other documentation is required to allow for a makeup.

Blackboard:

- Announcements and homework assignments will be posted on Blackboard. (www.learn.vt.edu).
- There is also a discussion board on Blackboard, which the TA and I will visit frequently.
- You should expect that the discussion board will be more responsive than emailing us directly, particularly on issues that pertain to course material. Before emailing me or the TA, decide if you can post the question to the discussion threads, so that other people can benefit from it.

Policies:

- Attendance is required.
- You are expected to have read the assigned material for that day.
- The schedule may change, so check the website for announcements.
- You are expected to abide by the Honor Code.

The Honor Code is the University policy which expressly forbids the following academic violations:

- Cheating -- Cheating includes the actual giving or receiving of any unauthorized aid or assistance or the actual giving or receiving of any unfair advantage on any form of academic work, or attempts thereof.

- Plagiarism -- Plagiarism includes the copying of the language, structure, ideas and/or thoughts of another and passing off same as one's own, original work, or attempts thereof.
- Falsification -- Falsification includes the statement of any untruth, either verbally or in writing, with respect to any circumstances relevant to one's academic work, or attempts thereof. Such acts include, but are not limited to, the forgery of official signatures, tampering with official records, fraudulently adding or deleting information on academic documents such as add/drop requests, or fraudulently changing an examination or other academic work after the testing period or due date of the assignment.