

PHI 120 – Introductory Logic – Spring 2015

019 TR 2:00 – 3:15 [CP 183](#)

Professor

KYLE BURCHETT

kyle.burchett@uky.edu

Department Phone ☎

(859) 257-1861

Office Hours

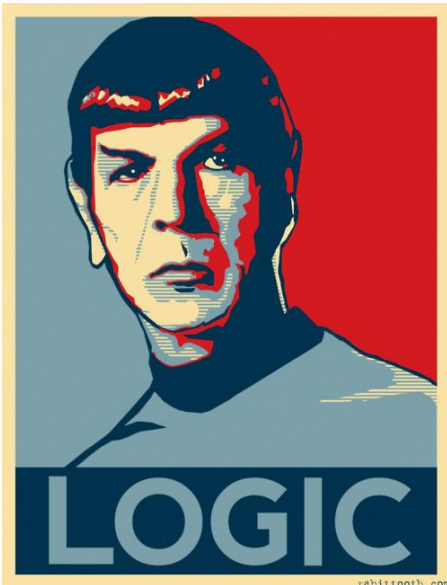
Tues. 1:00 – 2:00

1406 Patterson Office Tower

Mailbox 📧

1443 Patterson Office Tower

Overview



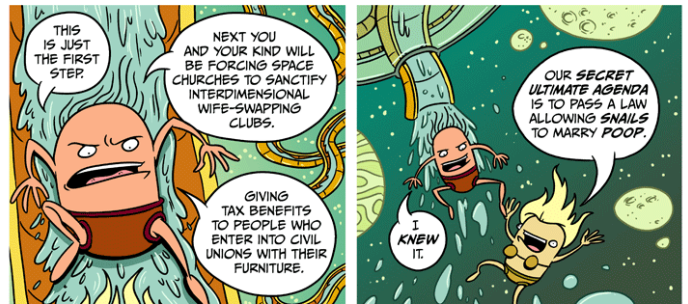
“Logic is the analysis and appraisal of arguments. When you do logic, you try to clarify reasoning and separate good from bad reasoning.” (Gensler 2010:1)

In this course, students will attain a practical understanding of logic and its application in critical thinking about everyday and philosophical issues. Students will learn to utilize the logician’s toolkit in order to distinguish good arguments from bad ones—with the aim being to inculcate standards of good reasoning, e.g., clarity, consistency and validity. The text and its accompanying software will help students become adept at analyzing the strength

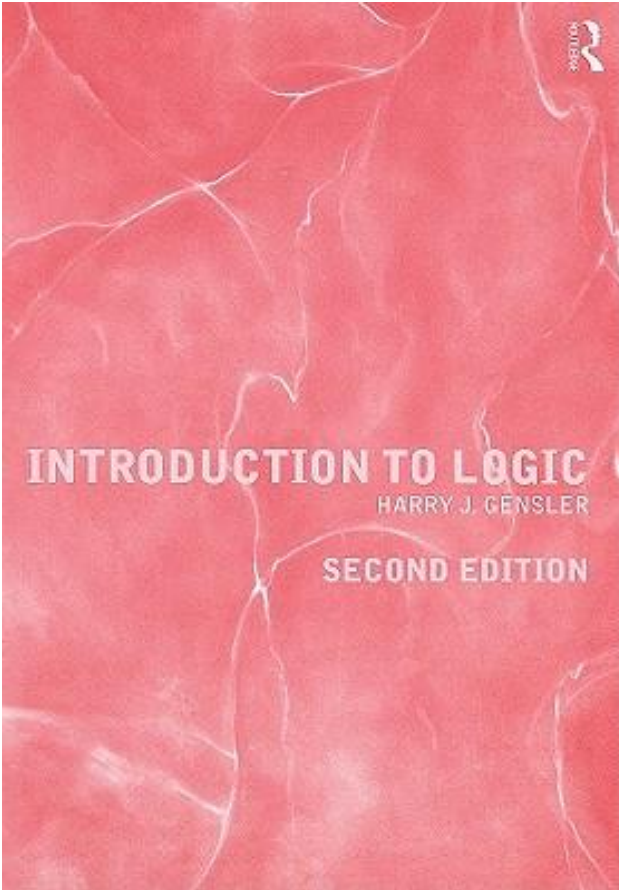
or soundness of the ideas that are presented to them every day from various sources. Consequently, students are expected to better understand the logic behind their own thoughts and actions—and to apply principles of logic in their reasoning.

“**Why study logic?** I can think of three main reasons. *First*, logic is important because reasoning is important. Reasoning and general analytical skills are important in law, politics, journalism, education, medicine, business, science, mathematics, computer science, and most other areas. *Second*, logic can deepen your understanding of philosophy. Philosophers ask questions like ‘Why accept or reject free will?’ or ‘Can one prove or disprove God’s existence?’ or ‘How can one justify a moral belief?’ If you don’t know any logic, you’ll have only a vague grasp of such issues; and you’ll lack the tools needed to understand and evaluate philosophical reasoning. *Finally*, logic can be fun. Doing logic is like playing a game or doing puzzles; logic will challenge your thinking processes in new ways. The rigor of logical systems will likely fascinate you.” (Gensler 2010:1–2)

SLIP-N-SCRAPE WATERPARK CONSTRUCT, GALAXY OF DREAD, ZONE OF BEANS



Required Text



Introduction to Logic

Routledge, 2nd Edition, 2010

Harry J. Gensler

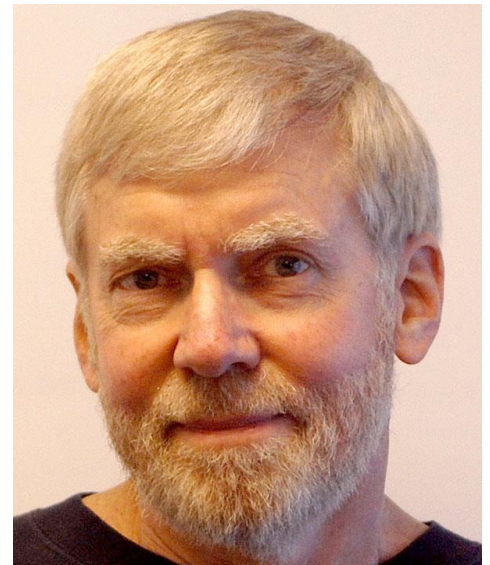
ISBN: 0415996511

"Students are given a first-rate, accessible introduction to the fundamentals of logic through extensive examples from some of the great questions in the history of philosophy. Thus, students are learning philosophy even as they're doing logic."

The free program accompanying the text, with its game format, is a genuine tutorial that enables students to master the concepts of each section through new examples and instant feedback."

Jay Aultman-Moore, Waynesburg University

"As you work through this book, you'll examine reasoning on various topics, both philosophical (like free will and determinism, the existence of God, and the nature of morality) and non-philosophical (like backpacking, water pollution, football, Supreme Court decisions, and the Bible). You'll come to see logic not as an irrelevant game with funny symbols, but as a useful tool to clarify and evaluate our reasoning – whether on life's deeper questions or on everyday topics." (Gensler, p. 1)



Grading

Students will maximize the possibility of receiving a satisfactory grade in this course by completing all assignments and attending every class ready to discuss that day's material. **It is each student's responsibility to request make-up quizzes or exams, although there will be no make-ups without an excused absence.**

The grading scale is as follows: A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, E = 0 – 59%.

1. **Quizzes: (50%)** There will be a number of quizzes administered throughout the semester – announced and unannounced. Quizzes will test students' comprehension of material and ability to solve problems from homework assignments. The number of quizzes given will determine the percentage each quiz is worth. The lowest quiz grade will be dropped. Missed quizzes cannot be made up without an excused absence.
2. **Exams: (50%)** There will be two exams, a midterm and a final, each worth 25%. Exams will test students' comprehension of material and ability to apply logic to solve the sorts of problems encountered in the homework assignments. Missed exams cannot be made up without an excused absence.
3. **Attendance/Participation: Attendance is mandatory.** Students will be permitted two unexcused absences, although perfect attendance is highly recommended. **Each subsequent unexcused absence will result in a deduction of two percentage points from the final grade.** Please note that students will be counted absent if they are tardy, leave early without permission, fail to pay attention, or are otherwise disruptive. *If you are going to be absent and have a legitimate reason, it is in your best interest to let me know.*
4. **Extra Credit:** Students who maintain perfect attendance and consistently contribute to classroom discussions will be awarded up to five bonus percentage points at the end of the semester. Students may also have opportunities to receive points by participating in outside events announced by the instructor.

Letters of Accommodation

If you have a documented disability which requires academic accommodations, please contact me as soon as possible with a letter of accommodation from the Disability Resource Center:

<http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/current.html>.

Miscellaneous

- ❖ **Be Advised:**  **Text messaging or listening to headphones is strictly forbidden and will result in a deduction of two percentage points from the GPA for each offense.** Cell phones must be muted or turned off during class. **'Smart' devices are allowed only if used for taking notes or accessing assigned materials.**
- ❖ **Appointments are not necessary.** If you would prefer to privately discuss the materials or anything else, please do not hesitate to **visit me during my scheduled office hours** or contact me by e-mail.



Assignment Schedule*

1. R 1.15
Greetings—What We Are Doing in This Class
2. T 1.20 **Introduction, Fallacies and Argumentation**
Read all of Ch. 1, [Skip ahead to Ch. 4: Good Arguments](#) (Ch. 1, Ch. 4.1) pp. 1—6, 55—59
3. R 1.22 **Fallacies and Argumentation**
Informal Fallacies, Exercise (Ch. 4.2, [4.2a](#)) pp. 59—67
4. T 1.27 **Fallacies and Argumentation**
Another Fallacy Exercise, Inconsistency, Exercise (Ch. [4.2b](#), 4.3, [4.3a](#)) pp. 67—73
5. R 1.29 **Fallacies and Argumentation**
Constructing Arguments, Exercise, Analyzing Arguments (Ch. 4.4, [4.4a](#), 4.5) pp. 74—79
6. T 2.03 **Inductive Reasoning**
The Statistical Syllogism, Probability Calculations, Exercise (Ch. 5.1, 5.2, [5.2a](#)) pp. 80—87
7. R 2.05 **Inductive Reasoning**
Philosophical Questions, Exercise (Ch. 5.3, [5.3a](#)) pp. 87—92
8. T 2.10 **Inductive Reasoning**
Reasoning from a Sample, Exercise (Ch. 5.4, [5.4a](#)) pp. 92—95
9. R 2.12 **Inductive Reasoning**
Analogical Reasoning, Exercise, Analogy and Other Minds (Ch. 5.5, [5.5a](#), 5.6) pp. 95—99
10. T 2.17 **Inductive Reasoning**
Mill's Methods, Exercise (Ch. 5.7, [5.7a](#)) pp. 99—104
11. R 2.19 **Inductive Reasoning**
Best Explanation Reasoning, Problems with Induction (Ch. 5.9, 5.10) pp. 111—117
12. T 2.24 **Basic Propositional Logic**
Easier Translations, Exercise (Ch. 6.1, [6.1a](#)) pp. 118—121
13. R 2.26 **Basic Propositional Logic**
Simple Truth Tables, Exercise (Ch. 6.2, [6.2a](#)) pp. 121—124
14. T 3.03
REVIEW FOR MIDTERM EXAM
15. R 3.05
Midterm Exam[†]
16. T 3.10 **Basic Propositional Logic**
Truth Evaluations, Exercise, Unknown Evaluations, Exercise (Ch. 6.3, [6.3a](#), 6.4, [6.4a](#)) pp. 124—126
17. R 3.12 **Basic Propositional Logic**
Complex Truth Tables, Exercise, The Truth-Table Test, Exercise (Ch. 6.5, [6.5a](#), 6.6, [6.6a](#)) pp. 126—132
18. T 3.17
Spring Break



* To be revised at the instructor's discretion.

[†] Midterm grades will be posted on [myUK](#) by midnight Friday, 3.13.

19. R 3.19

Spring Break20. T 3.24 **Basic Propositional Logic**

The Truth-Assignment Test, Exercise, Exercise (Ch. 6.7, 6.7a, 6.7b) pp. 133—138

21. R 3.26 **Basic Propositional Logic**

Harder Translations, Exercise (Ch. 6.8, 6.8a) pp. 138—140

22. T 3.31 **Basic Propositional Logic**

Idiomatic Arguments, Exercise (Ch. 6.9, 6.9a) pp. 140—143

23. R 4.02 **Basic Propositional Logic**

S-Rules, Exercise (Ch. 6.10, 6.10a) pp. 143—146

24. T 4.07 **Basic Propositional Logic**

I-Rules, Exercise, Mixing S- and I-Rules, Exercise (Ch. 6.11, 6.11a, 6.12, 6.12a) pp. 146—150

25. R 4.09[‡] **Basic Propositional Logic**

Extended Inferences, Exercise (Ch. 6.13, 6.13a) pp. 150—152

26. T 4.14 **Propositional Proofs**

Easier Proofs, Exercise (Ch. 7.1, 7.1a) pp. 153—157

27. R 4.16 **Propositional Proofs**

Exercise (Ch. 7.1b) pp. 157—160

28. T 4.21 **Propositional Proofs**

Easier Refutations, Exercise (Ch. 7.2, 7.2a) pp. 160—163

29. R 4.23 **Propositional Proofs**

Exercise (Ch. 7.2b) pp. 163—167

30. T 4.28

REVIEW FOR FINAL EXAM[§]

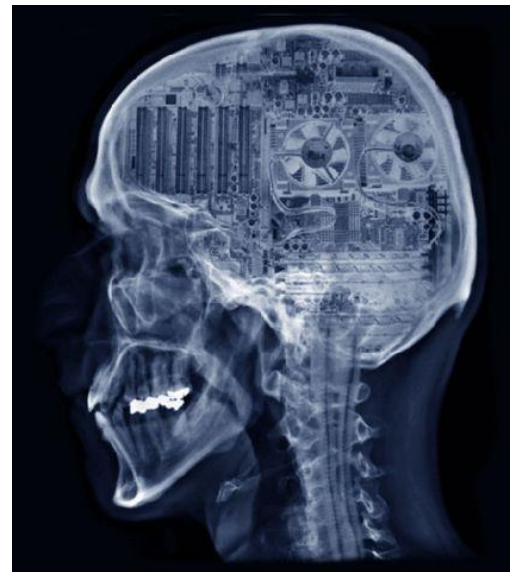
31. R 4.30

REVIEW FOR FINAL EXAM

32. R 5.07

FINAL EXAM [1:00 p.m. – 3:00 p.m.] CP 183

Final grades will be posted on [myUK](#) by midnight Monday, 5.11.



[‡] The last day to withdraw from the university or reduce course load is Friday, April 10th.

[§] Any student with more than two final examinations scheduled on any one date shall be entitled to have the examination for the class with the highest catalog number rescheduled.

☞ In case this highest number is shared by more than one course, the one whose departmental prefix is first alphabetically will be rescheduled.

☞ The option to reschedule must be exercised in writing to the appropriate instructor two weeks prior to the scheduled examination.