

INTRODUCTORY LOGIC

SEMESTER

Days, Time, Room

INSTRUCTOR

Jonathan Spelman

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COURSE DESCRIPTION

This course helps students improve their ability to identify and evaluate the arguments they encounter every day. After learning the fundamentals of good reasoning, including some basic formal logic, students learn how to identify cases of bad reasoning, specifically formal fallacies, informal fallacies, and cognitive biases.

OFFICE HOURS

I will hold office hours on Mondays and Wednesdays from 1:00-2:50 in Hellems 15. I will also be available by appointment.

COURSE TEXTS

You are required to bring two things to class everyday, the required text for the course and an i>clicker. Every so often, you will have an assigned reading that doesn't come from the required text, in which case it will be posted online.

REQUIRED TEXT

- Baronett, Stan. *Logic*. 2nd ed. New York: Oxford University Press, 2013.
- Kahneman, Daniel. *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux, 2013.

TECHNOLOGY POLICY

Studies show that students who write their notes retain more information than those who type their notes (see, for example, <http://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away>). In light of that, I ask that you not use your laptops during class. Of course, if you have a compelling reason for using your laptop during class, please let me know. I am willing to make exceptions to this rule in certain cases.

GRADES

Grades will be assigned in accordance with the university's uniform grading policy. "A" grades are exceptional and are reserved for those students who demonstrate both a comprehensive understanding of the material and competence with all the philosophical skills we work on over the course of the semester. "B-/C+" grades are average.

GRADED ELEMENTS

CLASS PREPARATION, ATTENDANCE, AND PARTICIPATION

You are encouraged to prepare for each class period by reading and flagging the assigned text and reflecting on its content. You are also encouraged to attend each class period and to be an active participant in both small and large group activities and discussions. This is good for you, your classmates, and me. We will all benefit from your participation.

Although there is no attendance or participation grade, you are expected to attend each class period that a homework assignment is due or an exam is taking place. After your second such absence, each additional absence will result in a 2.5% reduction in your final grade.

HOMEWORK ASSIGNMENTS

Homework assignments will be assigned on Fridays and due on Mondays. Although you should complete each homework assignment on your own, you will be able to rework #1, 2, 4, 5, 6, 8, 9, 11, and 12 in small groups. Of these nine grades, your lowest grade will be dropped. Each of the remaining grades will account for 2.5% of your final grade. You will not be able to rework homework assignments #3, 7, or 10. Each of those homework assignments will account for 5% of your final grade. Combined, your homework assignments will account for 35% of your final grade.

EXAMS

During the semester, you'll take three written exams. There will be two midterm exams, each of which will account for 20% of your final grade. The final exam will be cumulative and will account for 25% of your final grade. Thus, your exam grades will account for 65% of your final grade.

<u>GRADED ELEMENT</u>	<u>%</u>
Group Homework Assignments	20
Individual Homework Assignments	15
<u>Exams</u>	<u>65</u>
Total	100

ASSIGNED READINGS

1 – *What Logic Studies*

- Mon Introduction to Logic
- Wed Baronett (1A-1B): Statements and Arguments (2-10)
- Fri Baronett (1C-1E): Arguments and Explanations (18-25)

2 – *What Logic Studies*

- Mon **No Class (Labor Day/Martin Luther King, Jr. Day)**
- Wed **Homework #1**
- Fri Baronett (1F-1G): Deductive Arguments and Inductive Arguments (27-39)

3 – *Diagrams and Analysis*

- Mon **Homework #2**
- Wed Baronett (3A): The Basics of Diagramming Arguments (89-92)
- Fri Baronett (3B): Incomplete Arguments (98-102)

4 – *Exam #1*

- Mon **Homework #3**
- Wed Practice Exam
- Fri **Exam #1**

5 – *Propositional Logic*

- Mon Baronett (7A): Logical Operators and Translations (288-293)
- Wed Baronett (7B): Complex Statements (295-302)
- Fri Baronett (7C): Truth Functions (304-309)

6 – *Natural Deduction*

- Mon **Homework #4**
- Wed Baronett (8A-8B): Natural Deduction & Implication Rules I (354-361)
- Fri Baronett (8C): Tactics and Strategy (368-370)

7 – *Natural Deduction*

- Mon **Homework #5**
- Wed Baronett (8D): Implication Rules II (373-378)
- Fri Baronett (8D): Implication Rules II (373-378)

8 – *Natural Deduction*

- Mon **Homework #6**
- Wed Baronett (8E): Replacement Rules I (385-392)
- Fri Baronett (8E): Replacement Rules I (385-392)

9 – *Exam #2*

- Mon **Homework #7**
- Wed Practice Exam
- Fri **Exam #2**

10 – *Informal Fallacies*

- Mon Baronett (4A): Fallacies of Relevance (118-126)
- Wed Baronett (4A): Fallacies of Relevance (118-126)
- Fri Baronett (4A): Fallacies of Relevance (118-126)

11 – Informal Fallacies

Mon **Homework #8**

Wed Baronett (4B): Fallacies of Unwarranted Assumption (130-141)

Fri Baronett (4B): Fallacies of Unwarranted Assumption (130-141)

12 – Informal Fallacies

Mon **Homework #9**

Wed Baronett (4C): Fallacies of Ambiguity or Diversion (144-149)

Fri Baronett (4C): Fallacies of Ambiguity or Diversion (144-149)

13 – Cognitive Biases

Mon **Homework #10**

Wed Daniel Kahneman, *Thinking Fast and Slow*: Chapters 1-2 (19-38)

Fri Daniel Kahneman, *Thinking Fast and Slow*: Chapters 10-12 (109-136)

14 – Cognitive Biases

Mon **Homework #11**

Wed Daniel Kahneman, *Thinking Fast and Slow*: Chapters 13-15 (137-165)

Fri Daniel Kahneman, *Thinking Fast and Slow*: Chapters 16-18 (166-195)

15 – Wrap-Up

Mon **Homework #12**

Wed Practice Exam

Fri Practice Exam

Final Exam: Exam #3