

Logic, Reasoning, and Persuasion

730:101:04, Fall 2014

Scott Hall 116, MW 1:10-2:30pm

Instructor: Cherie Braden; cherie.braden@gmail.com

Meeting Outside of Class: I'll be in the Barnes & Noble on Somerset (either in the café or on the second floor by the windows that overlook Somerset) from noon to 1 pm on Wednesdays, or you can make an appointment with me for another time.

All readings will be available on or through the course website, which is on Sakai (PHIL101:04 F2014). <https://sakai.rutgers.edu/portal/site/0c552fa2-a18c-4a1f-b973-a1d0cef86d7d>

Overview

Per Course Catalog: 01:730:101 *LOGIC, REASONING, AND PERSUASION (3)* Development of skills in reasoning. Consideration of what an argument is, how arguments go wrong, and what makes an argument valid. Application of techniques for clarifying meaning, evaluating, and constructing arguments. ***Credit not given if student has already taken 01:730:201.***

As the catalog entry suggests, this class is all about arguments. We'll work on evaluating the arguments of others and constructing our own. Our goal in this course is not to become logicians: it's to become better reasoners, both forwards (in constructing arguments and solving problems) and backwards (in evaluating the arguments of others and retracing the steps taken to a conclusion).

We won't be doing a lot of memorization, but certain terms are important to remember. You'll find a file called Vocabulary on Sakai. I will update it every time we learn new terms. Always be prepared to use and define these terms on quizzes and exams!

Assessment

30% Homework Assignments
20% Surprise-ish Quizzes
20% Midterm
20% Final
10% Participation

Homework Assignments

There will be thirteen homework assignments over the course of the semester. They are designed to help you practice the material we're learning. You will find these posted on Sakai by the day they are assigned. None of these grades will be dropped. Ten points will be deducted per day for a late assignment. If you have a good reason not to meet a deadline, please contact me *in advance* and explain.

Surprise-ish Quizzes

There will be 8 quizzes in total. When averaging the quiz grades, I will drop your two lowest scores. Quizzes can ONLY be taken if you are in class when I give them out; you can't make them up later. They can consist of:

1. Questions designed to see whether you did the reading. Any quiz could have this type of question. Do the reading, and you can't go wrong here.
2. Questions about terms from the Vocabulary file on Sakai.
3. Tasks that require you to demonstrate a particular skill we've been learning (e.g. constructing truth tables). If I intend to include something like this on a quiz, I will warn you.
4. Arguments for you to analyze (given what you've learned thus far, and according to specific instructions).

Midterm & Final

The midterm and the final will have a similar format. They will each consist of several parts:

1. Evaluate an argument. (Short essay)

You will be given a passage to read and be asked to identify the argument or arguments it contains, their parts, how the parts are connected, what sort of reasoning is involved, instances of fallacious reasoning, etc. You'll also be expected to evaluate the evidence presented in the passage and to identify hidden assumptions. Is the argument valid? In what ways could it be improved? Use the concepts and vocabulary we've learned thus far to write your response.

2. Construct an argument. (Short essay)

For this section, you will choose a claim (from a list of options provided) and argue for or against it. Be careful in your choice. This is not a persuasive essay: the claim you choose to argue must be concludable through valid argumentation involving true premises. I will provide clarifying examples online. Your goal in this section is to validly reason your way to a true conclusion, not merely to demonstrate your rhetorical skills.

3. Short answer and multiple choice concerning vocabulary and concepts we've learned.

4. Extra Credit Puzzle

Participation

This consists of engaging in class discussion, asking questions, and otherwise demonstrating your involvement in the material.

Sakai

Homework assignments and all readings will be available on Sakai. If you can't access Sakai, let me know right away. Links to articles mentioned in the syllabus will also be available on Sakai. I strongly recommend downloading readings and assignments several classes in advance to avoid last-minute technical difficulties!

Attendance

You will receive a zero on any quiz you miss (they cannot be made up), and any unexcused absence will negatively impact your participation grade. Communication is key – please email me before class if you must miss. Five (5) unexcused absences will earn you an F in the course.

Academic Integrity

Don't cheat. Don't lie. Don't plagiarize. See the following link for more information on the university's policy: http://academicintegrity.rutgers.edu/academic-integrity-policy#1_AcademicIntegrity

Disability Accommodation

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Course Plan

*All readings and assignments are available on or through Sakai.

*The homework in the column on the right is to be done before the class on the row underneath it. For example, “Read Hurley on Arguments” is the assignment to be done in preparation for the class on 9/8.

*Check and know the updated vocabulary list on Sakai before EVERY class.

Day	Topic	Homework
Wednesday 9/3	Review Syllabus; Learn Basic terms in argumentation; Discuss Relationship Between Problem-Solving and Critical Thinking	Read “Hurley on Arguments”
Monday 9/8	Practice Identifying Arguments; Polya’s Principles Video: Monty Python	Read “Feldman on Rational Belief” Assignment 1: Feldman Exercises
Wednesday 9/10	Assignment 1 Due Deduction and closed systems Prep for Playing “Euclid the Game”	Play through Level 10 in Euclid the Game (euclidthegame.org). One of these proofs will be on the midterm.
Monday 9/15	Euclid’s System; Hidden Assumptions – Filling in the Blanks	Assignment 2: Both Sides of a Debate
Wednesday 9/17	Assignment 2 Due Group work and class discussion for Assignment 2	Read “An Illustrated Book of Bad Arguments”; Do Assignment 3 after reading.
Monday 9/22	Assignment 3 Due Truth Tables	Assignment 4: Making Truth Tables
Wednesday 9/24	Assignment 4 Due Recognizing and Using Argument Strategies; Basic Rules of Inference	Assignment 5: Exercises from Barker-Plummer et al.
Monday 9/29	Assignment 5 Due Recognizing Inference Chains; Process of Elimination Problem-Solving Game: Crossing the River	Read “Swartz on Necessary and Sufficient Conditions”
Wednesday 10/1	Necessary and Sufficient Conditions	Assignment 6: Conditions Worksheet. Read Feldman Chapter 7 pp167-195 (Stop before <i>B. Ambiguity and Arguments</i>)
Monday 10/6	Assignment 6 Due Rules of Argument Evaluation	Read Feldman Chapter 7 pp 195 - 215
Wednesday 10/8	Metaphors as Tools and Metaphors as Traps	Read SEP Article “Analogy and Analogical Reasoning” Sections 1-3.5 Assignment 7: Analogy Argument
Monday 10/13	Assignment 7 Due Practice Evaluating Arguments	Read Kline 39-44 and do the exercises at the end (Assignment 8).
Wednesday 10/15	Assignment 8 Due Deduction vs. Induction	Read Hurley Chapter 13
Monday 10/20	Review for Midterm (Midterm will cover material through 10/13)	NO HOMEWORK
Wednesday 10/22	Midterm	Read Einstein 16-22; Read New Yorker article “Trial by Fire”
Monday 10/27	Introduction to Scientific Method	Assignment 9: Science in the News
Wednesday 10/29	Assignment 9 Due Limitations of Scientific Method	Review “Fallacies in the Name of Science”

	Watch Relativity Video	
Monday 11/3	Abduction and Theoretical Desiderata	Read Poundstone 13-32. AFTER you do the reading, play with "Conway's Game of Life"
Wednesday 11/5	What Are Facts? Complexity and Uncertainty	Assignment 10: Paradoxes and Puzzles
Monday 11/10	Assignment 10 Due Discuss Paradoxes and Puzzles; Probability: Liar's Dice	Assignment 11: Beyond a Reasonable Doubt
Wednesday 11/12	Assignment 11 Due Intuitions & Probability: The Birthday Problem; The Monty Hall Problem; Lesson in Calculating Probability	Assignment 12: Probability Worksheet Read Lewis Carroll excerpts (Chapter 3 and Chapter 7 of <i>Alice in Wonderland</i>)
Monday 11/17	Assignment 12 Due Precision and Ambiguity in Meaning	Read Collins & Pinch Chapter 8
Wednesday 11/19	Class Discussion: Evidence in the Vaccination Debate	Read Hurley Chapter 12 Assignment 13
Monday 11/24	Assignment 13 Due Statistical Reasoning & Errors	NO HOMEWORK
Wednesday 11/26	NO CLASS	
Monday 12/1	Speculative Reasoning and Rationalizing	Read Kahneman 1
Wednesday 12/3	Problem Solving Practice: Permutation & Combination: Playing with Rubik's Cubes	Read Kahneman 2
Monday 12/8	Synthesis of Material Covered	
Wednesday 12/10	Review for Final Exam	
Wednesday 12/17	FINAL EXAM 8-11am	

Bibliography

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