730 Philosophy 101: Logic, Reasoning, & Persuasion (19153)

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<u>Course Description:</u> In this course we will be examining the basic structure of human reasoning as it is employed both in everyday life and more formal/scientific contexts. The ultimate goal is for you to become a critical thinker who possesses the necessary tools not only to examine rigorously the arguments made by others, but additionally to be able to develop your own arguments and think more clearly about the issues of our time.

Course Objectives: In this course you will learn...

- ...what reasoning is and what it isn't.
- ...how to evaluate everyday forms of reasoning.
- ...how to formalize reasoning to obtain greater precision.
- ...how reasoning works in scientific & other explanatory contexts.
- ...how to tell poor reasoning from good reasoning in the mass media.
- ...how to put your own thoughts together to come to a reasoned conclusion about a given issue.

Required Texts: These will be posted on Sakai

Schedule of Classes:

- Wednesday, 1/21 & Friday 1/23 (Meetings #1-2): Introduction: What is Reasoning?
 - **Readings:** Classifying & Analyzing Reasoning; Reasoning Substitutes
- Wednesday, 1/28 & Friday, 1/30 (Meetings #3-4): Diagramming Reasoning
 Readings: Diagrams & Complex Reasoning
- Wednesday, 2/4 & Friday, 2/6 (Meetings #5-6): Evaluating Reasoning
 Readings: Basic Evaluation
- Wednesday, 2/11 & Friday, 2/13 (Meetings #7-8): Real Life Reasoning
 Readings: Everyday Inferences
- Wednesday, 2/18 Meeting #9: First Exam
- <u>Friday, 2/20 Meeting #10:</u> Formalizing Reasoning
 <u>Readings:</u> Logical Structure of Propositions; Necessary & Sufficient Conditions
- Wednesday, 2/25 & Friday, 2/27 (Meetings #11-12): Deduction
 Readings: Big 8 Method
- Wednesday, 3/4 & Friday, 3/6 (Meetings #13-14): Deduction, cont'd
 ➤ Readings: Method of Derivation

- Wednesday, 3/11 & Friday, 3/13 (Meetings #15-16): Truth Tables & Truth Trees
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- Wednesday, 3/18 & Friday, 3/20: No Classes (Spring Break)
- Wednesday, 3/25 & Friday, 3/27 (Meetings #17-18): Venn Diagrams
 Readings: Categorical Reasoning
- Wednesday, 4/1 Meeting #19: Second Exam
- <u>Friday, 4/3 & Wednesday, 4/8 (Meetings #20-21):</u> Causation
 <u>Readings:</u> Causation, Causal Explanation & Causal Inference
- Friday, 4/10 & Wednesday, 4/15 (Meetings #22-23): Abduction > Readings: Analogy & Inference to the Best Explanation
- <u>Friday, 4/17 & Wednesday, 4/22 (Meetings #24-25):</u> Scientific Reasoning
 <u>Readings:</u> Experimental Methods; Mill's Methods
- Friday, 4/24 & Wednesday, 4/29 (Meetings #26-27): Induction > Readings: Induction; Problems in Induction
- Friday, 5/1 Meeting #28: Final Review
- Tuesday, 5/12: Final Exam (4-7PM)

Grading: Three quarters of your grade will be based on three exams (25% each; including the final exam), and the last quarter will be based on a "field project" which I will describe in more detail later. Attendance, while not formally part of your grade, will be recorded; if you fail to attend regularly you may find yourself dropped from the course (Additional Note from the University: "Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website https://sims.rutgers.edu/ssra/ to indicate the date and reason for your absence. An email is automatically sent to me (the instructor]."). Regular attendance is essential for doing well in the course, as there will be information presented in the lectures that isn't available in the text. Likewise, it is crucial that you keep up with the readings assigned for each week, so that you are able to follow along properly with the lecture material.