

# FOUNDATIONS OF LOGIC & MATHEMATICS

## Instructor

Professor Jonah Schupbach  
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## Office Hours

Tuesdays, 10:30-11:30am  
 CTIHB 417

## Class Meetings

Thursdays, 2-5pm  
 CTIHB 459

## COURSE DESCRIPTION

This term, the focus of this course will be inductive logic and the probability theory. The questions that we focus on will have to do with the following three general topics:

- The probability calculus: axioms, theorems, philosophical debate
- The concept(s) of probability
- Philosophical applications of probability

By the end of this course, students will have a clearer understanding of the philosophical issues that underlie the mathematics of probability and statistics; and they will be better equipped for doing philosophy with the aid of these formal tools.

## COURSE MATERIALS

There is no required text for this class. We will work through a series of articles, which I will make available on CANVAS <[utah.instructure.com](http://utah.instructure.com)>.

## COURSE PREREQUISITES

As described in the grad handbook, graduate students must have earned a grade of B or better in a deductive logic class (through predicate logic) to satisfy their formal requirement with this course. There are no *official* prerequisites for undergraduates; however, I will presuppose that all students have a working knowledge of classical logic and elementary algebra.

## COURSE REQUIREMENTS

### Undergraduates

- Participation / Attendance (10%)

Attendance each week is required; participation points may be earned in class discussion, or by especially active involvement on CANVAS discussion boards.

- Reading Discussions (30%)

There are two components to this requirement:

1. Each student will individually initiate a discussion on CANVAS pertaining to one of the assigned readings. This will involve summarizing the thesis of the article, and the most important points / lines of argument of the article. Students must have their discussion up and running *by Sunday* of the week they have signed up for.

2. *All* undergrads must participate in the CANVAS discussion *each* week. Use this resource to share thoughts / questions about the assigned reading. The idea is to show that you've done the reading carefully and also to prepare yourself for class discussion. To receive credit, contributions must be made *by Wednesday night* of each week.

- Exams ( $2 \times 30\%$ )

Both exams will be take-home, open note / readings. The final exam will be cumulative.

## Graduates

- Presentations ( $2 \times 10\%$ )

Grad students will each lead the class discussion on two of the assigned readings. Students may begin signing up for a date / reading in the first week of the course.

- Term Paper (80%)

15-20 pages exploring some topic of our class in more detail. Written proposal should be submitted to me by March 22nd at the latest.

## GRADING

Final grades will follow a standard 10-point scale: 98-100 A+, 92-98 A, 90-92 A-, 88-90 B+, 82-88 B, 80-82 B-, etc. I will *not* be using a curve when calculating your grades.

## POLICIES, ETC.

### Missing and Late Assignments

Students will not be allowed to make up exams without a valid reason excusing them and evidence of that reason (e.g., sickness and a doctor's note). Late homework will not be accepted in any case (even with a valid excuse); I'll throw out your lowest HW score at the end of the course. If you're going to be absent from class when HW is due, you need to turn it in to me before class or have a friend turn it in for you at the beginning of that class time.

### Academic Integrity

You're expected to adhere to the standards of academic honesty. Any student engaged in cheating, plagiarism, or other acts of academic dishonesty, will face disciplinary action. Students should refer to the University of Utah [student code](#) for a description of academically dishonest behavior and a summary of the actions that the university will take in punishing students who do not adhere to the standards described therein.

### ADA Statement

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the [Center for Disability Services](#), 162 [Olpin Union Building](#), 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.