This is the standard introduction to logic and critical thinking taken by both philosophy majors and by students that require a background in basic logic for other fields. This course will emphasize the concepts, methods and examples that have become increasingly relevant to pre-professional training for law and medicine and for the social sciences. The LSAT exam has long emphasized problems requiring special sorts of inference (causal inference, statistical inference, truth-functional and analogical inference, in particular) relevant to legal study. In the new MCAT exam coming on line in 2015, there is an increased focus on the socio-cultural and behavioral determinants of health, and a section, “Critical Analysis and Reasoning Skills,” has been added requiring proficiency in the types inference mentioned above.

This intensive four-week course will begin by introducing the distinction between deductive and inductive inferences and by presenting a variety of examples designed to illustrate the range of inferences and arguments that we shall study. (A deductive inference or argument is one in which the truth of the premises guarantees the truth of the conclusion; in an inductive argument, the truth of the premises make the conclusion only probable.) We will then move on to a brief study of deductive logic. emphasizing basic concepts and methods for evaluating deductive arguments. The concluding two and a half weeks of the course will focus on inductive logic: casual arguments, arguments from analogy, and elementary concepts and methods of statistical inference.

Requirements: Daily assignments, in part done cooperatively in class, and 4 tests, one at the end of each week. The homework and exam problems will be taken in part from LSAT and MCAT sample exams.