THIS COURSE is an introduction to the systematic study of elementary deductive logic, roughly, the study of what follows from what. Deductive logic has become a formal discipline: the emphasis is on the form of inferences, rather than on their content, since that allows us to study a vast array of arguments that are correct solely in virtue of their form. Deductive logic has also become a symbolic discipline: it employs symbolic techniques similar to those used in mathematics to concisely and precisely express forms that arguments have. For example, a simple argument like this one is correct in virtue of its form, “If Bob’s car is at his house, then he is home. His car is at his house, so he is home.” It might be expressed as $C \rightarrow H$, $C$, so $H$, with $C$ standing for “Bob’s car is at his house” and $H$ for “Bob is home”. It will turn out that any argument with this pattern must be correct in that the conclusion must be true if the premises are, and in virtue of its form.

The main focus in this course will be on acquiring facility in recognizing an argument’s form, learning to express it in concise symbolic form, and deriving its conclusion (if the original argument is correct). By working through the course materials, you can expect to enhance your capacity to quickly see what is implied by what is said (by yourself and by others), to gain a better understanding of the logical structure of natural languages, to be able to more carefully express yourself, and to enhance your capacity for problem solving generally.

Grading will be a function of the student’s performance on a series of tests. Typically, the class will be run as a workshop, learning together by doing, going over regular homework problems, and introducing a new concept or technique. You will learn logic a small step at a time.

For more info, please email me (paulm@unh.edu).