A central aspect of reasoning is the ability to give arguments for one’s conclusions. Logic is the formal representation of arguments, so mastering logic is essential for good reasoning. In this course, we will investigate the underlying, logical form of sentences and the deductive relations that hold between them, thus giving us deeper insight into the notion of inference from premises to conclusion. The course will present three logical systems, each in increasing expressive power: sentential logic, monadic quantificational logic, and polyadic quantificational logic. For each system, we will closely examine the syntax of the system, its relation to English, its particular semantic features, and the general properties of satisfiability, validity, implication and equivalence.

This is an online course, so all lectures, handouts, assignments and exams will be on Blackboard. Exams require a regular computer (Windows/Mac computer or laptop). You cannot take exams from mobile devices (e.g. iPhone, iPad, Android devices, etc.). You also need a working webcam and microphone, and your computer will need the Google Chrome web browser.

In this class we will investigate Ancient Greek Philosophy by closely studying Plato's Republic and Aristotle's' Nicomachean Ethics. These books, perhaps more than any others, invented philosophy as it is practiced in the West. By diving deep into these masterpieces, students will grapple with fundamental question about the nature of justice and the nature of happiness.