Course Description:

This course serves as an introduction to Western philosophical logic, both in its historical development and as it is practiced today. The course unfolds across four units. In unit one, we consider the meaning and purpose of logical reasoning and present the basic elements of logical argumentation. In the second unit, we discuss affirmation, negation, and the construction of standard propositional form. Unit three examines the form and figure of the logical syllogism, and treats two additional modes of logical reasoning: inductive reasoning and fallacious or sophistical reasoning. In the fourth and final unit, we introduce contemporary symbolic notation, and explore the value of raising logical reasoning to a higher level of abstraction. Within each unit, our investigation is enriched by selections from historical texts on logic from Aristotle, Antoine Arnauld & Pierre Nicole, Immanuel Kant, and Alfred Tarski.

Course Objectives:

Students will develop a working facility with and understanding of both informal and formal logic. At the same time, students will gain an appreciation for the way in which logical processes always already underlie their lives and the world around them. In the end, students will not only have a better understanding of what logic is—they will, more importantly, have the tools to make more logical decisions of their own.
Evaluation:

- Attendance and Participation: 20%
- Problem Sets: 20%
- First Exam: 20%
- Second Exam: 20%
- Paper on the Role of Logic in Your Life: 20%

Attendance will be taken each day. Each day’s attendance, coupled with active participation, will count toward 1% of your total course grade. Sometimes, quizzes pertaining to the reading assigned for the day in question will be administered. These will be graded pass/no pass, and failure to pass a quiz will result in a loss of attendance points for the day in question. Please come prepared to class each day having completed the entirety of that day’s assigned reading in advance. In order to be counted in attendance for any given day, you must also bring that day’s assigned reading with you to class. Additionally, if I notice that you are distracting yourself or others during a course session (with your cell phone, etc.), I may mark you absent for that day.

Active participation will be measured through your contributing to discussion and in-class activities, visiting office hours, and/or communicating with me independently via email. Many of the ideas we will discuss can be highly challenging, especially if encountered for the first time. Your participation will help me adjust the difficulty and approach of the course as we go. Please also let me know—preferably during office hours or via email—about any specific difficulties you may be having, or if there are topics you would like to discuss more extensively.

Problem sets will be distributed at the beginning of each unit, and will be due in-class on the final day of that unit (where they will be discussed). Typewritten responses are preferred, though neatly handwritten responses are also acceptable. Unless arrangements are made with me via email or in-person prior to the due date (for example, in the case of a family emergency), late problem sets will not be accepted.

Two exams will be given during the term. Both exams will be cumulative, as material covered in previous units will be continuously drawn upon as the course unfolds. Both exams will include problems similar to, though not identical with, those treated in the problem sets.

The paper on the role of logic in your life will ask you to reflect upon the ways in which your life (or, if you prefer not to discuss yourself, the world around you) is or is not logical, according to the specific ways in which logic has been defined in class. Detailed instructions will be distributed during week eight. Target lengths will be 4-6 pages.

The following rubric reflects the general standards of the Philosophy Department at the University of Oregon, which I will follow in my overall evaluation for this course:

A = excellent. No mistakes, well-written, and distinctive in some way or other.
B = good. No significant mistakes, well-written, but not distinctive in any way.
C = OK. Some errors, but a basic grasp of the material.
D = poor. Several errors. A tenuous grasp of the material.
F = failing. Problematic on all fronts indicating either no real grasp of the material or a real lack of effort.
Students are also expected to know, understand, and comply with the standards of the university regarding academic dishonesty, including rules against plagiarism, cheating, fabrication and falsification, multiple submissions, and misuse of academic materials.

**Required Texts:**

This course uses one required text, which can be purchased at the campus bookstore, your neighborhood bookshop, and for less online:

- Scott Pratt, *Logic: Inquiry, Argument, and Order*, 2013

Other required readings will either be distributed in advance in-class, or posted on canvas.

**Course Schedule:**

W1: Tuesday (3/29)  Course Introduction

  **Unit One – Logic, Reason, and the Basic Terms of Logical Reasoning**

W1: Thursday (3/31)  Reading: Arnauld and Nicole, from *Logic or the Art of Thinking* (1683)
Reading: Kant, from *The Jäsche Logic* (1800)
Reading: Pratt, *Logic*, 2.1

W2: Tuesday (4/5)  Reading: Pratt, *Logic*, 1.6, 2.2, & 3.5
(argsuments, premises, conclusions, inference, validity, soundness, & truth)

W2: Thursday (4/7)  Discussion of First Problem Set

  **Unit Two – Affirmation, Negation, and Standard Form**

W3: Tuesday (4/12)  Reading: Aristotle, from *De Interpretatione* (4th Century BCE)
Reading: Pratt, *Logic*, 4.2 (on Aristotle)

W3: Thursday (4/14)  Reading: Pratt, *Logic*, 4.3 (standard form, mood, Venn diagrams)

W4: Tuesday (4/19)  Reading: Pratt, *Logic*, 4.5 (direct inference)

W4: Thursday (4/21)  Discussion of Second Problem Set

  **Unit Three – Syllogisms, Inductive Reasoning, and Fallacious Reasoning**

W5: Tuesday (4/26)  Reading: Aristotle, from *Prior Analytics* (4th Century BCE)
Reading: Pratt, *Logic*, 4.7 (the form and figure of syllogisms)


W6: Tuesday (5/3)  Reading: Aristotle, from *Sophistical Refutations* (4th Century BCE)
Reading: Pratt, *Logic*, 3.6 (fallacies)
W6: Thursday (5/5)  Discussion of Third Problem Set

W7: Tuesday (5/10)  First Exam (administered by a fellow GTF)

    Unit Four – Deductive Reasoning Symbolized

W7: Thursday (5/12)  Reading: Tarski, from Introduction to Logic (1941)
    Reading: Pratt, Logic, 6.5 (symbols, rules, postulates)

W8: Tuesday (5/17)  Reading: Pratt, Logic, 6.5 (truth tables, argument forms)

W8: Thursday (5/19)  Reading: Pratt, Logic, 6.6 (tableaux)

W9: Tuesday (5/24)  Reading: Pratt, Logic, 7.2–7.3; 7.5–7.7 (quantified logic)

W9: Thursday (5/26)  In-class problem set time (David away at conference)

W10: Tuesday (5/31) Discussion of Fourth Problem Set

W10: Thursday (6/2)  Second Exam

Finals Week  Paper on the Role of Logic in Your Life Due