Objectives of Course:
(1) To learn the theories and doctrines involved in the Aristotelian, verbal conception of logic. This is logical theory or the ‘science’ of logic.
(2) To learn how to apply Aristotelian logical theories to actual logical problems, both text-book problems and the logic of real discourse. This is the ‘art’ or ‘craft’ of logic, and is the focus of the course.
(3) To learn how to connect logic with grammar and rhetoric in oral and written discourse.
(4) To apply logic to your own thought, speech, and writing, in school and out.

Requirements:
1. Two or three tests during the semester; the exact number to be determined by the instructor.
2. Final Examination.
3. Problems: quizzes, homework, and class participation.
Each test, the final exam, and the composite grade for quizzes, homework, and class participation all will be equally weighted in computing your final average. So if we have three tests during the semester, each

Please Note: Scheduled quizzes and pop quizzes cannot be made up. Your two lowest quiz or homework grades will be dropped when computing your grade for (3) above.

The instructor reserves the right to adjust your final average by up to 3%, based on class participation and improvement during the semester.


Text for course: Houser, R. E. Rhetoric and Reasoning: Logic as a Liberal Art (available on Blackboard or as handouts).

Consultation Texts on Reserve in the Library:

Read = required reading assignments; you should do this reading before class (Lessons are on Blackboard)
HW = homework exercises; you should do them before class, then during class we will cover them. Sometimes you will be asked to turn in your homework at the beginning of class, at other times in class quizzes will be given, and at other times you will be asked questions in class which you must answer orally.
PS = Problem Set (on Blackboard)

Part 1: Logic and Rhetoric

24 Aug: Introduction to Logic
Read: Houser, Prologue: The Trivium: Grammar, Rhetoric, Logic
26 Aug: A Grounding in Grammar
Read: Houser, Lesson 1, “A Grounding in Grammar”
HW: PS 1: Grammar Review

28 Aug: Rhetoric: An Introduction: 3 kinds of persuasive discourse: 3 appeals
Read: Lesson 2, “Rhetoric: An Introduction”
HW: PS 2: Gorgias, Encomium of Helen

31 Aug: Rhetoric: Persuasive Discourse: Five Parts of a Speech
First Reading: Houser, Lesson 3, “The Canon of Five Rhetorical Skills”
HW: PS 3, Rhetorical Analysis of Plato, Apology of Socrates
Second Reading: Houser, Lesson 4, “Rhetoric: the Three Appeals”
HW: PS 4: Identifying the three appeals

2 Sep: More Practice with the Three Rhetorical Appeals
Read: Lesson 4, “Rhetoric: the Three Appeals”
HW: PS 4: Identifying the three appeals

4 Sep: Rational appeal: logic as problem solving: wonder, four questions, many answers, three acts of the mind
First Reading: Lesson 5, “Aristotle Invents Logic—twice”.
HW: PS 5 “Logic as problem solving”
Second Reading: Lesson 6, “Aristotle Organizes the Logic of Discovery and Proof”
HW: PS 6: “Identifying arguments, propositions, and terms”

7 Sep: Labor Day holiday

Part 2: The Logic of Terms

9 Sep: Language, Thought, and Reality
Read: Lesson 7, “Language, Thought, and Reality”
HW: PS 7: Kinds of Signs

11 Sep: Working toward Definitions: Answering the ‘What?’ Question: Categories
Read: Lesson 8, “Working toward Definitions: Answering the ‘What?’ Question: Categories”
HW: PS 8: Recognizing and Using Categories

14 Sep: More on Categories
Read: Lesson 8, “Working toward Definitions: Answering the ‘What?’ Question: Categories”
HW: PS 8, section 4: Using division and collection of concepts: Madison, Federalist No. 10

16 Sep: Working toward Definitions: the Predicables
Read: Lesson 9, “Predicables”
HW: PS 9: “Recognizing Essence, Property, and Accident”

18 Sep: Working toward Definitions: Causes
Read: Lesson 10, “Answering the “Why?” Question: Causes”
HW: PS 10: “Recognizing the four causes”

21 Sep: More Causes
Read: Lesson 10, “Answering the “Why?” Question: Causes”
HW: PS 10: Recognizing the four causes

23 Sep: Types of Definitions: Logical, Causal, Descriptive
Read: Lesson 11, “Definitions: Logical, Causal, Descriptive”
HW: PS 11: Distinguishing types of definitions, Part 1, easier definitions

25 Sep: Advanced Definitions
Read: Lesson 11, “Definitions: Logical, Causal, Descriptive”
HW: PS 10: Distinguishing types of definitions, Part 2, harder definitions

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Part 3: The Logic of Propositions

28 Sep: First Test: Rhetoric and the Logic of Terms

30 Sep: Statements and Propositions
Read: Lesson 12, “Statements and Propositions”
HW: PS 12: Distinguishing different kinds of propositions

2 Oct: Properties of Categorical Propositions
Read: Lesson 13, “Properties of Categorical Propositions”
HW: PS 13: Distinguishing four kinds of categorical propositions: A, I, E, O

5 Oct: Recognizing Kinds of Categorical Propositions
Read: Lesson 14: “Recognizing Kinds of Categorical Propositions”
HW: PS 14, Advanced categorical propositions

7 Oct: Identifying Categorical Propositions in prose passages
Read: Lesson 15: “Categorical Propositions in context”
HW: PS 15: Propositions in Context

9 Oct: More Identifying Categorical Propositions in prose passages
Read: Lesson 15: “Categorical Propositions in context”
HW: PS 15: Propositions in Context

12 Oct: Columbus Day Holiday

14 Oct: Euler and Venn Diagrams of Propositions
Read: Lesson 16, “Euler and Venn Diagrams of Propositions”
HW: PS 16, “Using Euler and Venn Diagrams to picture categorical propositions”

16 Oct: Opposition
Read: Lesson 17, “Opposition”
HW: PS 17, Using the Classical Square of Opposition

19 Oct: Conversion
Read: Lesson 18, “Conversion”
HW: PS 18, Converting the Four Kinds of Categorical Propositions

21 Oct: Obversion
Read: Lesson 19, “Obversion”
HW: PS 19: Obversion and advanced manipulations

23 Oct: Hypothetical Propositions
Read: Lesson 20, “Hypothetical Propositions”
HW: PS 20, Logic of hypothetical propositions

26 Oct: Advanced Hypothetical Propositions
Read: Lesson 21, “Advanced Hypothetical Propositions”
HW: PS 21: Advanced Hypothetical Propositions

28 Oct: **Second Test: Logic of Propositions**

30 Oct: Deductive and Inductive Reasoning
Read: Lesson 22, “Two Kinds of Reasoning”
HW: PS 22, Distinguishing deductive and inductive reasoning

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**Part 4: The Logic of Arguments**

2 Nov: Structure of the Categorical Syllogism
Read: Lesson 23, “The Categorical Syllogism”
HW: PS 23, Identifying the logical structure of categorical syllogisms

4 Nov: Rules for the Validity of Syllogisms
Read: Lesson 24, “Validity of Categorical Syllogisms”
HW: PS 24, Using the Rules to determine validity

6 Nov: Categorical Syllogisms in Prose
Read: Lesson 25, “Categorical Syllogisms in Prose”
HW: PS 25, Analyzing Categorical Syllogisms in Prose

9 Nov: More Categorical Syllogisms in Prose
Read: Lesson 25, “Categorical Syllogisms in Prose”
HW: PS 25, Analyzing Categorical Syllogisms in Prose

11 Nov: Venn Diagrams for Categorical Syllogisms
Read: Lesson 26, “Venn Diagrams of Categorical Syllogisms”
HW: PS 26, Venn Diagrams of Categorical Syllogisms

13 Nov: Enthymemes and Epicheiremas
Read: Lesson 27, “Enthymemes and Epicheiremas”
HW: PS 27, “Recognizing Enthymemes and Epicheiremas”
16 Nov: Longer Categorical Arguments
Read: Lesson 28, “Longer Categorical Arguments”
HW: PS 28, Longer Categorical Arguments

18 Nov: Hypothetical Arguments
Read: Lesson 29, “Hypothetical Arguments”
HW: PS 29, Hypothetical Arguments

20 Nov: Advanced Hypothetical Arguments
Read: Lesson 30, “Advanced Hypothetical Arguments”
HW: PS 30: Standardized Test Style Arguments

23 Nov: Third Test: Categorical Arguments

25 Nov: Thanksgiving Holiday

27 Nov: Thanksgiving Holiday

30 Nov: Induction
Read: Lesson 31, “Induction”
HW: PS 31, “Distinguishing deductive and inductive arguments”

2 Dec: Complex Arguments
Read: Lesson 32, “Complex Arguments”
HW: PS 32: Complex arguments, including both deduction and induction

4 Dec: Logic and Content: Why some Arguments are Stronger than Others:
Read: Lesson 33, “Logic and Content: Why some Arguments are Stronger than Others”
HW: PS 33: Looking beyond form to the content of arguments

7 Dec: Last Day of Class: Methodologies in the different disciplines
Read: Lesson 34: Methods of Reasoning 1: Literature and Story-telling
Lesson 35: Methods of Reasoning 2: Philosophy
Lesson 36 Methods of Reasoning 3: Science and the Scientific Method
HW: PS 34: Story-telling and Literature: the concrete story and the abstract message
HW: PS 35: Philosophy: Abstract reasoning leads to concrete conclusions
HW: PS 36: Scientific Method: concrete evidence leads to abstract conclusions

Comprehensive Final Examination: during exam period