

SECTION B

General Education Information:

SECTION C

Course Description

Repeatability May be repeated 0 times

Catalog Description Develops skills in the use of deductive and inductive inferences; propositional and sentential logic; logical fallacies; and various syllogistic arguments for evaluating formal and informal arguments. Includes analytical and argumentative reading and writing exercises.

Schedule Description Offered at least once a year.

SECTION D

Condition on Enrollment

1a. **Prerequisite(s):** *None*

1b. **Corequisite(s):** *None*

1c. **Recommended:** *None*

1d. **Limitation on Enrollment:** *None*

SECTION E

Course Outline Information

1. Student Learning Outcomes:

A. 1.) Recognize, identify, create and apply various logical structures and elements (and/or lack of them in the form of logical fallacies) for analyzing the logical efficacy of different written arguments and claims. 2.) Demonstrate competent English composition skills on a variety of topics by writing logically cogent disquisitions using the reasoning skills listed above.

2. Course Objectives: Upon completion of this course, the student will be able to:

A. A. Demonstrate an understanding of proof method (natural deduction) in sentential logic as well as competence in methods of formal logic. B. Identify the relation between language and logic. C. Distinguish fact from opinion and knowledge from belief. D. Identify and critique deductive and inductive arguments in contemporary oral and written arguments. E. Apply deductive and inductive argument in essay form. F. Construct well organized written arguments advocating ideas and positions using logical tools as a foundation. A minimum of 6,000 words.

B.

3. Course Content

A. Critical Thinking - Arguments

- a. Distinguishing arguments from non-arguments
- b. Breaking-down and analyzing arguments according to reasons and conclusions
- c. Identifying assumptions and implications
- d. Distinguishing between deductive and inductive arguments
- e. Translating deductive arguments into logical form
 - a. Implications of natural deduction

- b. Rules of Inference
- c. Identifying and creating categorical syllogisms
 - a. Square of Opposition
 - b. Existential/Venn Opposition
- d. Identifying and creating inductive arguments
 - a. Analogies
 - b. Generalizations
 - c. Causation and the scientific method
- e. Evaluating Arguments
 - a. Assessment of structure and form of propositions and arguments
 - b. Exposing formal and informal fallacies
- f. Critiquing content of arguments
 - a. Are the reasons relevant to the thesis statement?
 - b. Are the reasons true? Adequate? Clear? Unbiased?
 - a. Clarifying meaning:
 - a. Ambiguity/Equivocation
 - b. Vagueness
 - c. Bias/Slanting
 - d. Definition
 - e. Connotation/Denotation

B. Critical Writing - Composition

- a. Developing an adequate thesis statement
- b. Supporting a thesis with logic, reasons, evidence
- c. Drawing inferences from different sources (examples: statistics, authority, examples, testimony, judicial case rulings, etc.)
- d. Clarifying meaning and avoiding vague, indefinite and slanted sentences
- e. Supporting positions using various forms of deductive and inductive arguments
- f. Constructing a progression of substantial compositions that demonstrate the following:
 - a. Evaluation of works written by others by assessing structure and content
 - b. Advocation of one's own ideas in written form providing logical and empirical support for the claims and refuting the position of opponents while avoiding logical fallacies
 - c.

4. Methods of Instruction:

Activity: Students will occasionally solve problems from the textbook in small groups during class.

Discussion: LECTURE/DISCUSSION from textbook chapters.

Lecture: Presentations of Irving Copi's book INTRODUCTION TO LOGIC with problem-solving exercises.

Other: YouTube clips of speeches by contemporary luminaries to be analyzed with respect to their logical efficacy and empirically verifiable information.

5. Methods of Evaluation: Describe the general types of evaluations for this course and provide at least two, specific examples.

A final exam essay delineated in the section titled "Methods of Evaluation".

C. Other Assignments

D.

7. Required Materials

A. EXAMPLES of typical college-level textbooks (for degree-applicable courses) or other print materials.

Book #1:

Author: Copi, I. and Cohen, C.

Title: Introduction to Logic

Publisher: Routledge

Date of Publication: 2016

Edition: 14th

B. Other required materials/supplies.