

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: PHI 111

Credits: 3

Course Title: Logic I

Course Description: Introduces inductive and deductive reasoning, with an emphasis on common errors and fallacies. Prerequisites: Placement in ENG 111 or placement in co-requisites ENG 111 and EDE 11. Lecture 3 hours per week.

General Course Purpose: The course will prepare students to successfully achieve in their areas of interest by providing them tools and techniques related to reasoning and argumentation. The language techniques and formal symbolic methods will guide students in the quantitative thinking required in the sciences as well as in the humanities. This course serves as an approved humanities elective.

Course Prerequisites and Co-requisites:

Prerequisites: Placement in ENG 111 or placement in co-requisites ENG 111 and EDE 11

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Identify the basic concepts expressed in everyday parlance;
- b. Recognize the different functions of language;
- c. Identify the definitions and assumptions used in ordinary discourse;
- d. Identify and exhibit the many informal fallacies commonly encountered in inductive and deductive reasoning;
- e. Develop, analyze, and present deductive reasoning;
- f. Recognize syllogisms and their validity; and
- g. Apply in all analyses modern techniques of symbolic logic.

Major Topics to Be Included:

- a. Sentences
- b. Valid and sound argumentations
- c. Syllogisms, informal logic, construction of arguments
- d. Inductive reasoning, scientific laws
- e. Deductive reasoning, truth tables, rules of derivation
- f. Propositional logic, quantification

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