

Piedmont Technical College Course Syllabus

COURSE INFORMATION

Course Prefix/Number: PHI 105

Title: Introduction to Logic

Responsible Division: Arts and Sciences

Last Day to Withdraw from this Course: For the last date to withdraw from this course, consult the current *Student Calendar*.

Course Description:

For course, credit hour, pre-requisite(s) and co-requisite(s) information, visit the Detailed Course Information page: www.ptc.edu/courses/PHI105.

Textbook and Other Materials:

For textbook information and additional required and/or supplemental materials, visit the [college bookstore](http://www.ptc.edu/bookstore) (www.ptc.edu/bookstore).

Proctored Examinations:

Proctored examinations for distance learning courses taken at non-PTC campuses may require a proctoring fee for each exam taken.

COURSE POLICIES

Course policies are available online through the *Academic Catalog* and *Student Handbook*. Visit the [Course Policies page](http://www.ptc.edu/syllabus/policies) (www.ptc.edu/syllabus/policies) for a detailed list of important policies and more information.

GRADE POLICY

Detailed grading policy information can be found on the [Grading Policy webpage](http://www.ptc.edu/grading-policy) (<http://www.ptc.edu/grading-policy>). Final grade appeal information is available in the [Academic Catalog](http://www.ptc.edu/catalog/) (<http://www.ptc.edu/catalog/>).

ACCOMMODATIONS

Accommodations for ADA:

Information is available on the [Student Disability Services webpage](http://www.ptc.edu/ada) (<http://www.ptc.edu/ada>).

TITLE IX HARASSMENT AND SEXUAL ASSAULT INFORMATION

In accordance with Title IX of the Education Amendments of 1972, Piedmont Technical College does not discriminate on the basis of sex in its education programs or activities. Title IX protects students, employees, and applicants from sex discrimination in admissions and employment to include discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. More information regarding Title IX, including contact information for the Title IX coordinators, is available at [Title IX Harassment and Sexual Assault Information](https://www.ptc.edu/about/legal-disclosures/title-ix-harassment-and-sexual-assault-information) (<https://www.ptc.edu/about/legal-disclosures/title-ix-harassment-and-sexual-assault-information>).

RATIONALE

Why do I need this course?

Philosophy seeks to understand the most basic nature of reality. It is concerned with reality as a whole as opposed to separate areas or sections of reality, such as history, the sciences, religion, and the arts. The principles and characteristics discovered by philosophy are represented as the foundation of the knowledge contained in the specific areas of knowledge. Logic is often referred to as the "tool of philosophy."

PROGRAM INFORMATION

For program information including required courses, program learning outcomes, gainful employment information and advisement information, refer to the Academic Program webpage. Go to [Academics](http://www.ptc.edu/academics) (<http://www.ptc.edu/academics>), select your program, and then select Credentials Offered.

COURSE STUDENT LEARNING OUTCOMES

Upon successful completion of this course and/or clinical, each student will be able to:

- Become familiar with the language of logic by memorizing appropriate vocabulary terms.
- Identify logical arguments and determine the premises and conclusion of the arguments.
- Distinguish between deductive and inductive arguments.
- Prove that an argument is invalid by offering a counterexample.
- Recognize and identify informal fallacies.
- Identify the subject term and predicate term of a categorical proposition.
- Determine the quality and quantity of a categorical proposition.
- Analyze categorical propositions using the ideas of conversion, obversion, and contraposition.
- Identify the terms, mood and figure of a categorical syllogism.
- Distinguish between the Aristotelian and Boolean standpoint for categorical syllogisms.
- Determine the validity of a categorical syllogism.
- Recognize and identify formal fallacies.
- Translate statements into symbolic form using the standard symbols of propositional logic.
- Determine the validity of an argument using a truth table.
- Identify the forms of standard valid arguments.
- Justify each step of a given proof using the rules of inference.
- Construct proofs based on one or more premises using the rules of inference.

GENERAL EDUCATION COMPETENCIES

Piedmont Technical College General Education Competencies for All Graduates:

This course may address one or more of the following General Education Competencies (assessment will be stated when applicable):

Communicate effectively.

Assessment:

Solve logic problems and engage in class discussion

Apply mathematical skills appropriate to an occupation.

Assessment:

Critical thinking skills, based on the development of the understanding of rules of logic

Employ effective processes for resolving problems and making decisions.

Assessment:

Logical proofs and analyze arguments in which students are given premises and required to draw a conclusion based upon the rules of logic

Demonstrate the basic computer skills necessary to function in a technological world.

Assessment:

D2L is used for quizzes and exams and program called APLIA to do homework

To validate proficiency in the general education competencies, students in some programs will be tested using Work Keys.