

A: Division: Academic
 B: Department: Arts & Humanities

Date: September 1, 1994

New Course:

Revision of Course
 Information Form: X

Dated: December 1981

C: PHIL 201 D: LOGICAL REASONING E: 3
 Subject & Course No. Descriptive Title Semester Credit

F **Calendar Description:** This course enables students to develop their ability to reason by introducing them to abstract logical concepts. The primary focus will be upon recognizing the logical structure of statements and arguments, and upon understanding how to connect statements together into good arguments. Topics will include meaning, types of statements, symbolism, logical connectives, logical relations, basic deductive inferences, truth tables, validity, invalidity, soundness, inductive reasoning, probability and the testing of scientific hypotheses. Emphasis will be upon acquiring a basic working knowledge of most of the topics covered. Offered: Winter

Summary of Revisions:
 (Enter date & section)
 Eg. Section C,E,F
 1994.09.01
 Sections: M, N, R

G: **Type of Instruction: Hours per Week/per Semester**

Lecture	2	Hrs.
Laboratory		Hrs.
Seminar	2	Hrs.
Clinical Experience		Hrs.
Field Experience		Hrs.
Practicum		Hrs.
Shop		Hrs.
Studio		Hrs.
Student Directed Learning		Hrs.
Other		Hrs.
TOTAL	4	HOURS

H: **Course Prerequisites:**
 PHIL 101 or Consent of Instructor

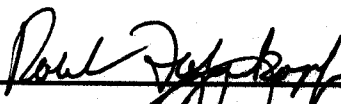
I: **Course Corequisites:**
 None

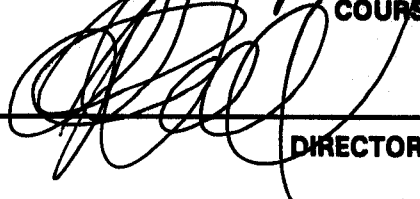
J: **Course for which this Course is a Prerequisite:**
 None

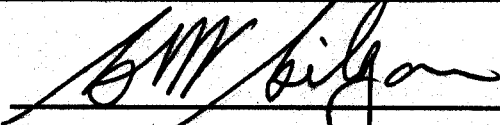
K: **Maximum Class Size:**
 25

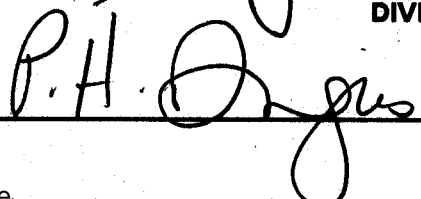
L: **College Credit Transfer** X
College Credit Non-transfer

M: **Transfer Credit:**
 Requested:
 Granted: X
 Specify Course Equivalents or Unassigned Credit as Appropriate:
 U.B.C. PHIL 201 = Phil 125 (3)
 S.F.U. PHIL 201 = Phil 110 (3)
 U. Vic. PHIL 201 = Phil 201 (1.5)
 Other:


 COURSE DESIGNER(S)


 DIRECTOR/CHAIRPERSON


 DIVISIONAL DEAN


 REGISTRAR

**N: Textbooks and Materials to be Purchased by Students
(Use Bibliographic Form):**

Sample Texts: (one of the following)

Copi, Irving and Cohen, Carl. Introduction to Logic. 9th edition. MacMillan, 1994.

Hurley, Patrick J. A Concise Introduction to Logic. 5th edition. Wadsworth Publishing Company: Belmont, CA, 1994

Halverson, William H. A Concise Logic. 1st edition. Random House: New York, 1984.

Complete Form with Entries Under the Following Headings:

O: Course Objectives; P: Course Content; Q: Method of Instruction;
R: Course Evaluation

O. COURSE OBJECTIVES

By the end of the course students should be able to:

1. Explain the nature of the discipline of logic.
2. Distinguish the basic elements of argument and recognize the different types of arguments.
3. Distinguish statements from other forms of speech; identify types of statements and the various uses of statements.
4. Identify logical relations between statements, identify truth-functional connectives, and analyze logically complex statements into their truth-function components.
5. Distinguish valid deductive arguments from invalid ones, and sound ones from unsound ones.
6. Explain what validity is and prove the validity or invalidity of arguments which have simple statements and truth functional connectives.
7. Recognize kinds of basic inductive arguments and assess their adequacy.
8. Recognize logical fallacies (at least basic formal deductive and inductive ones) and explain their nature.
9. Use the basic techniques of traditional and modern logic to analyze and reconstruct the logic of written arguments, and to assess their adequacy.
10. Use the basic techniques of traditional and modern logic to develop one's own arguments.

P. COURSE CONTENT

- I. Introduction to the Course, Its Scope and Aims; Assignments, Readings and Evaluation; Procedures and Methods.
- II. The Nature of Logic and of Philosophical Argument
 1. Types of Argument-- Inductive and Deductive
 2. Validity and Soundness
 3. Enthymemes
 4. Diagramming Arguments
 5. Practice with Identifying Arguments and Types of Arguments
 6. Practice with Valid and Invalid Deductive Arguments
- III. The Elements of Logic: Statements, Their Relations and Connectives
 1. Types of Statements
 - a. Universal, General, Particular, Singular
 - b. Quantification
 - c. Analytic-Synthetic
 2. Uses of Statements and Words
 - a. Assertion, Presupposition, Suggestion
 - b. Emotive Use
 - c. Definitions
 - d. Ambiguity and Vagueness
 - e. Use-mention Distinction.
 3. The Square of Opposition and Logical Relations
 4. Truth-Functional Connectives
 5. Tautologies
 6. Practice with Statements
- IV. Deductive Arguments
 1. Valid and Invalid Deductive Arguments Again
 2. Reductio Ad Absurdum Arguments, Dilemmas and Complex Forms of Deduction
 3. Practice with Valid and Invalid Forms of Deductive Arguments Again
 4. Proving Validity
 5. Practice with Symbolizing Statements and Arguments
 6. Predicate Logic and Quantification (minimal and optional)
 7. The Logic of Relations (minimal)
- V. Inductive Arguments and Probability
 1. Types of Inductive Arguments
 - a. Inductive Generalizations
 - b. Inductive Analogy
 - c. Statistical Syllogisms
 - d. Hypotheses about Causes; and scientific reasoning

2. Assessing Good Inductive Arguments
 3. Formal Inductive Fallacies
 4. Practice with Good, Not-so-good, and Bad Inductive Arguments
- VI. Logical Fallacies--Other than Formal Inductive and Deductive--(Optional)
1. Those which do not result in non-sequitur arguments, e.g. Begging the question.
 2. Non-sequitur fallacies, e.g. fallacies of irrelevance such as Ad Hominem.
- VII. Analysis and Construction of Arguments (Minimal--As time permits)
1. Recognizing the Logical Form of Written Arguments and Discovering Fallacies.
 2. Reconstructing and Symbolizing the Logical Form of Written Arguments.
 3. Developing One's own Arguments.

Q. METHOD

There will be two hours of lectures each week, with time allowed for questions; there will also be two hours of discussion of the exercises and assignments. Emphasis will be upon obtaining a working knowledge of most of the topics covered.

R. EVALUATION

Any combination totalling 100%:

Instructor's General Evaluation (based on participation, improvement, and short assignments)	10 - 20%
Quizzes and Assignments	10 - 30%
Mid-term Examinations (2)	20 - 40%
Final Examination	<u>30%</u>
	<u>100%</u>

Course Outline Explanation Form

(To be completed with course outline for DC approval/Agenda Oct. 3/94)

Course No. PHIL 201 Title LOGICAL REASONING

New Course Revision X Tendered by Robert Fahrnkopf

Please use the space below to provide information on the following items:

- A. Rationale for Implementation
 OR
 Explanation of Revisions (as noted in Section C, p. 1)
- B. Class Size Rationale
- C. Budgetary Impact (if any)

A. Explanation of Revisions:

Section N: Textbook section updated

Section R: Added instructor's general evaluation component and revised percentage for other components.

B. Class Size Rationale: N/A

C. Budgetary Impact: None