Institutional Syllabus: PHIL 205

I. **Course Title**: Logic
II. **Course Number**: PHIL 205
III. **Credit Hours**: 3
IV. **Prerequisites**: None

V. **Catalog Description**:
   An introduction to the essential principles of logical thinking, with particular attention to the fundamentals of inductive and deductive reasoning.

VI. **Curricular Relationships**:
   This course is part of the elective block for the pre-law program and philosophy minor.

VII. **Student Learning Outcomes**: Through four tests and a series of pop quizzes, students will:
   1. Learn the basic vocabulary of the subject
   2. Recognize arguments, informal fallacies, and formal fallacies
   3. Translate statements and arguments into symbolic form
   4. Use truth tables to test arguments for validity and to test statements for consistency
   5. Understand the symbolic representation of propositional logic
   6. Apply the rules of inference, replacement and implication to construct proofs for validity
   7. Understand the application of logic to moral, legal, and scientific reasoning

VIII. **Course Content**:
   Unit One: Basic Concepts
      - Deduction and Induction
   Unit Two: Informal Fallacies
      - Fallacies of Relevance, Weak Induction, Presumption, Ambiguity, Grammatical Analogy
   Unit Three: Categorical Propositions
      - Venn diagrams, Modern Square of Opposition
   Unit Four: Categorical Syllogisms
      - Mood, Form, Figure, Venn Diagrams, Enthymemes, Sorites
   Unit Five: Propositional logic:
      - Symbols and Translation, Truth Tables for Arguments
   Unit Six: Natural Deduction in Propositional Logic:
      - Rules of Implication, Rules of Replacement, Indirect Proof
   Unit Seven: Induction:
      - Analogy, Legal and Moral Reasoning, Causality, Statistical, Hypothetical, Science and Superstition
**IX. Course Procedures:** Through twelve pop quizzes of which the student’s lowest two will be dropped, three tests, and one final, students will evidence their developing ability to construct and evaluate arguments.

Available Points:

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<tbody>
<tr>
<td>3 Tests</td>
<td>100 pts. each</td>
<td>300</td>
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<tr>
<td>10 quizzes</td>
<td>10 pts. each</td>
<td>100</td>
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<tr>
<td>1 Final</td>
<td>100 pts.</td>
<td>100</td>
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<td><strong>Total Course Points:</strong></td>
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<td><strong>500</strong></td>
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**X. Grading Scale:**

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<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
<th>Points</th>
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<tbody>
<tr>
<td>A</td>
<td>100 – 90</td>
<td>500-450</td>
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<tr>
<td>B</td>
<td>89-80</td>
<td>449-400</td>
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<td>C</td>
<td>79-70</td>
<td>399-350</td>
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<tr>
<td>D</td>
<td>69-60</td>
<td>349-300</td>
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<tr>
<td>F</td>
<td>59-0</td>
<td>299-0</td>
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**XI. Required Text:**

A comprehensive and clear introduction to logic, the following is suggested:

Hurley, Patrik, *A Consice Introduction to Logic*

**XII. Any Issues Unique to this course:**

N/A

**XIII. Additional Issues of the Department’s Choosing**

N/A