Course Description: This course will introduce students to some of the most important issues in logic. A working knowledge of these issues will enable them to achieve a certain degree of expertise in the evaluation of their own thought processes and the thought processes involved in any argument they might encounter. It will begin with an overview focusing on the importance of logic within the larger framework of philosophy, insofar as logic has direct relevance not only to personal existence but also to the idea of the universe as the sum total of existing things. The course will then move from this larger picture to a more focused examination of the “three laws of thought,” Aristotle’s *si est* and *quid est* questions from his *Posterior Analytics*, the uses of language and the differences between good and bad arguments. Within the context of arguments, a good portion of the course will be devoted to the examination of informal fallacies as well as the structure of categorical propositions and categorical syllogisms. Afterwards, our focus will turn towards an examination of the relative merits of both deductive and inductive logic. The primary text will be *Introduction to Logic: Evaluating Arguments*, by Dr. Ed Teall – in addition, there will be various handouts from the instructor throughout the semester. This course is designed to introduce students to a meaningful understanding of logic that can be retained over a lifetime. It is for this reason that the actual quantity of the reading assignments and discussion topics is not overwhelming. The reading assignments and discussion topics have been intentionally limited so that the student can focus (repeatedly) on the issue at hand with multiple practice assignments – these practice assignments enable the student to attain a richer, qualitative understanding of the issue and they allow her to retain the knowledge over a much longer period of time.

Student Learning Objectives: If you do the work required for this course (reading, reflecting, understanding, participating in class discussions, and writing), you will be able to:

- identify the basic components of the discipline of logic
- use the critical thinking methods of logic to analyze and evaluate arguments
- use the critical thinking methods of logic to analyze the ways in which philosophers attempt to craft philosophical theories; and
- state and support your own views on issues related to logic in class discussions, on tests, and in a coherent, concise paper.

Required Text:

- *Introduction to Logic: Evaluating Arguments*, by Dr. Edwin Teall

Class Requirements: One critical/reflective paper (10% of final grade), periodic quizzes (announced and unannounced – 40% of final grade), punctual attendance/class participation (15%), a midterm exam (15%) and a final exam (20%). In addition, each absence from class (late arrivals and early departures as well) will decrease the student's final numerical course average by 1 point. "Make-up" examinations/quizzes will not be given under any circumstances. Please review the college’s rules concerning plagiarism, because plagiarized papers will cause you to fail the course.

Attendance Policy: Please show up to class on time and ready to go. It is your responsibility to be punctual and prepared. I will not stop and review the information for latecomers and absentees. Thus, the responsibility to find out what you miss falls on you. Absences and latenesses will be strictly noted. Students are allotted THREE absences and THREE latenesses before any penalty to the final course grade; THREE latenesses equal ONE absence. SIX absences, or two full weeks of absences, ensure a final course grade no higher than a “C.” NINE absences, or three full weeks of absences, automatically guarantee a failure for the course.

*Documentation for medical, filial, or personal situations will excuse your absence thereby making it an excused
absence. However, documentation will not make up for the lack of participation and class work.

• Leaving class early for any reason will be noted and may, at the discretion of the instructor, count as an absence. If you know that you will be missing class, leaving class early, or arriving to class late, please let me know ahead of time.

**Grading Scale**

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</table>

**University Grading Standards**

I fully confirm to the University’s official statement regarding the assignment of grades and workload expectations.

A … achievement that is outstanding relative to the level necessary to meet course requirements.

B … achievement that is significantly above the level necessary to meet course requirements.

C … achievement that meets the course requirements in every respect.

D … achievement that is worthy of credit even though it fails to meet fully the course requirements.

F … represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

I (Incomplete) … Assigned at the discretion of the instructor when, due to extraordinary circumstances, e.g., hospitalization, a student is prevented from completing the work of the course on time. This stipulation requires a written agreement between instructor and student.

**Schedule of Topics, Readings, Exams and Final Paper**

1. **Introductory Classes – How Logic Relates to the Whole of Philosophy (Weeks 1, 2, and 3: 8/25/08; 9/01/08; 9/08/08)**
   
   - **Logos (wisdom) and the meaningfulness of the universe**
     - Necessity and contingency
     - Whether existence is as necessary as the laws of logical thought
     - The logic of arguments associated with natural theology
       - Some logical proofs for God’s existence: both deductive a priori arguments and inductive a posteriori arguments
       - Some logical proofs for human spirituality and immortality
     - The source of intelligibility in things
     - Truth as a “property of being”
     - The natural desire for logos
   
   - **Knowledge as “transcendence”**
     - The universality of the “three laws of thought”
     - The logic of “formal causality” as that which sets a thing “apart”
     - Whether the words, “logic is invalid” have a specific meaning
     - The use of logic in the “refutation” of logic
     - Logic as a normative, rather than descriptive, discipline

   **Quiz #1 (Introductory issues)**
   
   - Aristotle’s si est and quid est questions
   - Logic as the pursuit of consistency within the confines of order
   - The logical effects of a lack of transcendence

   - **The logic of personal existence and human destiny**
II. Introduction to Logic – Chapter One (Weeks 4, 5, and 6: 9/15; 9/22; and 9/29/08)

- Deductive/inductive arguments
- Formal/informal logic
- Categorical syllogisms
- Different uses of language

Assignments: Recognizing Arguments (to be posted on WebCT)

- The parts, components, and claims of an argument
- Inductive arguments – the inferential claim
- Deductive arguments – the inferential claim
- Appearance/reality – the criteria for good/sound/valid arguments
- Invalid arguments

Quiz #2 (Chapter 1)

III. Informal Fallacies – Chapter Two (Weeks 7, 8, 9, and 10: 10/6, 10/13, 10/20, and 10/27/08)

- Arguments: formal and informal elements
- Fallacies of relevance
  - Argumentum ad Bacalum
  - Argumentum ad Populum
  - Appeal to Pity
  - Appeal to Desire
  - Argumentum ad hominem
  - Abusive ad Hominem
  - Circumstantial ad Hominem
  - Tu Quoque
  - Red Herring
  - Appeal to Unqualified Authority

Assignments: Practice in Informal Fallacies of Relevance (to be posted on WebCT)

Quiz #3 (Chapter 2: Fallacies of Relevance)

- Fallacies of presumption
  - Hasty Generalization
  - False Cause
  - Appeal to Ignorance
  - Begging the Question
  - Accident or Sweeping Generalization
  - Slippery Slope
  - Weak or False Analogy
  - False Dichotomy
  - Suppressed Evidence

Assignments: Practice in Informal Fallacies of Presumption (to be posted on WebCT)

MIDTERM EXAM

- Fallacies of ambiguity
  - Equivocation
  - Amphiboly
  - Accent
  - Division
  - Composition
Assignments: Practice in Informal Fallacies of Ambiguity (to be posted on WebCT)

IV. Formal Logic: Categorical Propositions – Chapter Three and Following (Weeks 11, 12, and 13: 11/3, 11/10, and 11/17)

- The evaluation of inferences
- Identifying classes
- The four parts of a categorical proposition
- A propositions
- E propositions
- I propositions
- O propositions
- Rules for translating sentences into Standard Form Categorical Propositions

Assignments: Translating Sentences into Standard Form Categorical Propositions (to be posted on WebCT)

Quiz #4 (Fallacies of Presumption and Ambiguity)

- Venn Diagrams – illustrating A,E,I, and O categorical propositions
- Distribution within A,E,I, and O propositions (universal and particular)
- Immediate Inferences (Square of Opposition)
  - Contradictory propositions
  - Proving the validity/invalidity of inferences from contradictory propositions
  - Converting E and I categorical propositions
  - Learning from contradictories and conversions

Assignments: Venn Diagrams, Contradictories and Conversions (to be posted on WebCT)

Quiz #5 (Venn Diagrams, contradictories and conversions); PAPER DUE

VIII. Inductive Logic – Chapter Seven (Weeks 14, 15: 11/24 and 12/01/08)

- Differences between inductive and deductive arguments
- Qualities of good inductive arguments
- Different types of inductive arguments
  - Predictions
  - Argument based on signs
  - Argument from authority
  - Inductive generalizations
- Analogies
  - Evaluation of arguments from analogy
- John Stuart Mill – identifying causes
  - Types of conditions
  - The method of agreement
  - The method of difference
  - Joint method of agreement and difference
  - The method of residues
  - The method of concomitant variation
- The scientific method
  - David Hume’s problem with induction
    - ways in which this problem is related to Hume’s other philosophical positions
    - discussion of some possible causes for Hume’s skepticism
    - discussion of some of the logical effects of skepticism
  - Responses to the problem of induction
    - the outlook for realism as an “openness to the universe”
    - implications for epistemology and ethics
      - whether there really is a gap between the knower and the known
      - whether the cause can be found in the effect
      - whether final causality/purpose can be known with any degree of certitude

IX. Week 16: 12/8/08: Summaries and Conclusions; FINAL EXAM