

## CRITICAL THINKING AND DECISION MAKING

Instructor-Bob Dunlap

Class#1. Introduction-Purpose, goals and content. Definition of Logic

Class #2 Deductive Logic; Syllogisms; Propositions.

Class #3 Deductive Logic continued; Importance of precise language; Scope; Soundness, Validity and truth.

Class #4 Contradictions and Contraries; Creating Syllogisms for decision making.

Class #5 Diagramming; Structural problems.

Class #6 Logical Fallacies.

Class #7 Fun Quiz; Word Problems.

Class #8 Inductive Logic; Argument by analogy.

Class #9 Thinking like a Lawyer, Doctor, and Mechanic; Scientific Method.

Class #10 Psychological aspects of Critical Thinking; Pattern recognition; Biases; Causation Problems; Fear and fear avoidance; Framing effect; Loss Avoidance.

Class #11 Randomness

Class #12 Probability

Class #13 Statistics and polling; Course reflection