**Course Title: Logic and Critical Thinking**

* Week 1 Definition of Logic; Logic as Study of Thought; Logic in terms of Art and Sciences
* Week 2 Premises and Conclusions; Basic terms; The order of Premises and Conclusion
* Conclusion Indicators and Premises Indicators; Argument in Context
* Week 3 Diagram for single Arguments; Agreements and Disagreements of Attitudes
* Week 4 The Language; Three Basic Functions of Language; Discourse Serving Multiple Functions; The Forms of Discourse
* Week 5 Emotive words and the Logic of Emotions; Emotively Neutral Language
* Week 6 Truth and Validity – Test Construction (Standardization and Generalization)
* Problem Solving; Creativity Thinking and Invention
* Week 7 Fallacies; Fallacy of Relevance; Fallacy of Ambiguity
* Week 8 Definition; Purpose of Definition; Purpose of Definition; Types of Definition
* Week 9 Proposition; Kinds of Proposition; Categorical Proposition; Quality, Quantity and Distribution
* Week 10 The Traditional Square of Opposition; Contradictories; Contraries; Sub Contraries; Sub alternation; The Sequence of Opposition; Existential import
* Week 11 Categorical Syllogisms; Standard form categorical Syllogisms; Major, Minor and Middle Terms; Mood; Figure; Venn diagram
* Week 12 Symbolic Logic; The value of Special Symbols; The Symbols for Conjunction, negation and Disjunction
* Week 13 Analogy; Arguments by Analogy; Appraising Analogical Arguments
* Week 14 Science and Hypothesis; The Value of Sciences; Problem and its solution (Deduction)
* Week 15 The Method of Deduction; The Formal Proof of Validity; The Rule of Replacement; Proof of Invalidity; Reliability and Reliability