FYUGP
PHILOSOPHY
SEMESTER-I

Course Name: LOGICAL REASONING
Course Code: SEC 1
Nature of Course: SKILL ENHANCEMENT COURSE (SEC)
Total Credit: 3
Distribution of Marks: 60 (End-Sem) +40 (In-Sem)

Course Description:

This is a Skill Enhancement Course of Philosophy is designed for the learners aspiring to acquire knowledge of logical reasoning and its importance in avoiding errors in our reasoning. It aims to give fundamentals of different kinds of logical reasoning as well as formal and informal fallacies. This course is aimed at building capacities of the learners to easily detect formal and informal fallacies in their argumentative presentations.

Course Outcomes (COs) & Intended Learning Outcomes (ILOs)

The students will be able to

CO-1 Describe the nature of logical reasoning and its relation to scientific and philosophical reasoning

ILO-1.1: Define Deductive reasoning and Inductive reasoning

ILO-1.2: State the points of difference between Deductive reasoning and Inductive reasoning

ILO-1.3: Explain the nature of Logical reasoning

ILO-1.4: Analyze the distinctive features of Scientific and Philosophical reasoning

ILO-1.5: Describe the relation of logical reasoning to Scientific and Philosophical reasoning

CO-2: Determine the nature of Abductive and Inductive reasoning

ILO-2.1: Define Abductive reasoning and Inductive reasoning

ILO-2.2: Explain the natures of Verbal and Non-verbal reasoning

ILO-2.3: Describe the basic features of Inductive reasoning

ILO-2.4: Analyze the idea of generalizing from a Sample and Statistical Syllogism

ILO-2.5: State the marks Argument from Analogy and Causal Argument

CO-3: Identify different fallacies in our reasoning

ILO-3.1: Define formal fallacy and informal fallacy

ILO-3.2: State the points of difference between formal fallacy and informal fallacy

ILO-3.3: Explain different kinds of formal fallacy

ILO-3.4: Analyze the nature of Informal Fallacy

ILO-3.5: Describe the importance identifying fallacies in our reasoning

CO-4: Apply logical reasoning to avoid prejudices in our thinking

ILO-4.1: State the marks fallacies of Relevance and fallacies of Presumption

ILO-4.2: Explain the nature fallacies of Equivocation and fallacies of Amphiboly

ILO-4.3: Analyze the nature of fallacies of Composition and Division

ILO-4.4: Describe the conditions that help us to avoid different informal fallacies

ILO-4.5: Describe the importance of the knowledge of informal fallacies

Course Outcome Representation with Blooms Taxonomy:

Cognitive Knowledge Dimension	**Cognitive Process Dimension**					
	Remember	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Create**
Factual Knowledge						
Conceptual knowledge		CO1		CO 2		
Procedural knowledge		CO2	CO3 CO4		CO3 CO 4	
Metacognitive Knowledge		CO3	CO4			

Course Contents with unit, marks and teaching-learning hours distribution:

Units	COs & ILOs	Course Content	L	T	P	Total Hours
Unit-I (Marks 15)	**CO-1** ILO1.1– ILO 1.5	1. Meaning of Logical Reasoning 2. Nature of Deductive and Inductive Reasoning 3. Relation of Logical Reasoning to Scientific and Philosophical Reasoning	10	2	-	12
Unit-II (Marks 15)	**CO-2** ILO 2.1 – ILO 2.5	1. Nature of Abductive Reasoning, Verbal and Non-verbal Reasoning 2. Inductive Reasoning: Generalizing from a Sample, Statistical Syllogism, Argument from Analogy, Causal Argument	9	2	-	11
Unit-III (Marks 15)	**CO-3** ILO 3.1 – ILO 3.5	1. Logical Fallacy: Distinction between Formal and Informal Fallacy 2. Formal Fallacy: Affirming the Consequent, Denying the Antecedent, Undistributed Middle 3. Informal Fallacy: Fallacies of Defective Induction	9	2	-	11
Unit-IV (Marks 15)	**CO-4** ILO 4.1 – ILO 4.5	1. Informal Fallacy: Fallacies of Relevance, Fallacies of Presumption 2. Fallacies of Equivocation and Amphiboly, Fallacies of Composition and Division	9	2	-	11
		Total	**37**	**8**	**-**	**45**

Modes of Assessment

End Semester Assessment **60 Marks**

Written Test

In-Semester Assessment: **40 Marks**

Two Sessional Examinations: 20 Marks

Any two of the following activities listed below: 20 Marks

Seminar/ Group Discussion/ Project /Assignment /Viva etc.

(In case of Project Work, it will carry 20 marks along with 20 marks for two compulsory Sessional Examinations)

Suggested Readings:

1. Copi & Cohen: *Introduction to Logic*. Pearson, New Delhi (Ch. 1 & 10) 12th ed. 2006

2. Parker & Moore: *Critical Thinking*. McGraw Hill, New Delhi (Ch. 2 & 8) 13th ed. 2023

3. Sen, Madhuchanda: *An Introduction to Critical Thinking*. Pearson, New Delhi 2010

4. Patrick J. Hurley: *A Concise Introduction to Logic*. Cengage, Delhi (Ch. 1 & 3) 2018

5. Chakraborty, C.: Logic: *Informal, Symbolic and Inductive*. PHI, New Delhi, 2009

6. Patrick J. Hurley: *A Concise Introduction to Logic*, CENGAGE Learning: New Delhi, 2012

7. Gensler, Harry J.: *Introduction to Logic*, Routledge. 2002

8. Sharma, Banajit and Deka, Jahabi: *A Textbook of Logic*. Aak Baak Prakashan, 2012