SOPHIA COLLEGE FOR WOMEN (EMPOWERED AUTONOMOUS)

Affiliated to

UNIVERSITY OF MUMBAI

Programme: **B.A. in PHILOSOPHY**

Programme Code: SBAPHI

(Choice Based Credit System with effect from the year 2023-24)

Paper Title	**Formal Logic**
Code	**AVSC305**
Year of introduction	**2024-25**
Class	**SYBA**
Semester	**3**
Total Credits	**02**
External Assessment	**Non-Graded**
Internal Assessment	**50**

Course Objectives: **The course aims**

1	To introduce students to methods of traditional logic to evaluate formal arguments
2	To master the theory underlying Aristotelian logic

Course Learning Outcomes: After successful completion of the course students should be able to:

1	Distinguish and identify arguments from non arguments
2	Determine the validity of arguments through the application of syllogistic reasoning.
3	Determine the validity of arguments using the method of Venn diagrams.

SYLLABUS: Formal Logic

Unit 1	**Basic Concepts in Logic**	**No of Lect. (15)**
Topic 1	Arguments: premise and conclusion; recognizing arguments	**5**
Topic 2	relation between truth and validity of an argument	**5**
Topic 3	inductive and deductive arguments, recognizing inductive-deductive arguments.	**5**
Unit 2	**Traditional Logic**	**No of Lect. (15)**
Topic 1	Four fold classification of propositions and distribution of terms;	**5**
Topic 2	Testing validity of arguments: structure of syllogism and syllogistic method (Rules of syllogism)	**5**
Topic 3	Venn diagram method to test validity of arguments.	**5**

REFERENCES

Irving Copi, Carl Cohen and Kenneth McMahon, *Introduction to Logic 14th* edition
Patrick Hurley, *A Concise Introduction to Logic*
Stan Baronett, Logic.

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(Choice Based Credit System with effect from the year 2023-24)

Paper Title	**Critical Reasoning**
Code	**AVSC205**
Year of introduction	**2024-25**
Class	**SYBA**
Semester	**4**
Total Credits	**02**
External Assessment	**50**
Internal Assessment	**50**

Course Objectives: **The course aims**

CO 1	To introduce various logical reasoning techniques involved in traditional and formal logic.
CO 2	To master the theory underlying the above techniques.
CO 3	To equip the students with knowledge of logical reasoning to enable them to appear for competitive examinations involving logic.

Course Learning Outcomes: After successful completion of the course students should be able to:

CLO 1	Analyze the logical structure of language to present its validity.
CLO 2	Application of critical thinking frameworks to complex problems and unfamiliar situations.
CLO 3	Demonstrate this ability by synthesizing information from diverse sources, evaluating the strengths and weaknesses of opposing viewpoints, and formulating well-reasoned solutions.
CLO 4	Successfully attempt competitive examinations involving logical reasoning.

SYLLABUS: CRITICAL REASONING

Unit 1	**Forms of Reasoning**	**No of Lect. (15)**
Topic 1	Analogical reasoning	**4**
Topic 2	Moral reasoning	**4**
Topic 3	Statistical reasoning	**3**
Topic 4	Scientific reasoning	**4**
Unit 2	**Informal Fallacies**	**No of Lect. (15)**
Topic 1	What is a fallacy? Formal and Informal fallacies	**3**
Topic 2	Fallacies of relevance (Threat, Pity, Popular opinion, personal attacks, generalizations)	**4**
Topic 3	Fallacies of weak induction (false authority, ignorance, hasty generalization, false cause, slippery slope)	**4**
Topic 4	Fallacies of presumption and ambiguity (begging the question, complex question, false dichotomy, equivocation, amphiboly, composition and division)	**4**

References

Unit 1: Forms of Reasoning

Patrick Hurley and Lori Watson, A Concise Introduction to Logic, chapter 9, 12 and 13
Stan Baronnett, Logic: An Introduction, chapter 10, 12, 13 and 14

Unit 2: Informal Fallacies

Patrick Hurley and Lori Watson, A Concise Introduction to Logic, chapter 3
Stan Baronnett, Logic: An Introduction, chapter 4

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