Modern Education Society's

Nowrosjee Wadia College

(An autonomous College affiliated to Savitribai Phule Pune University)

T.Y.B. A. LOGIC (Minor for B.A.)

(Based on NEP 2.0)

Semester 5

Syllabus

(To be implemented from the Academic Year 2026-27)

Objectives:

1. To introduce Symbolic Logic as an academic discipline to students.
2. To teach students to acquire pleasures in logical thinking.
3. To inculcate critical and systematic thinking in student's mind as well as common stakeholder in general.
4. To create awareness about the significance of logical thinking for academics and life in general, in students and common stakeholders.
5. To prepare students for university evaluationsystem andcompetitive examination

Title of the course: B.A.

Structure of the Course (2(T) (2 Credit Course)

Course Code	Course Title	Credit	Evaluation		
		T/P	CE	SEE	TOTAL
NLOGMN356	**LOGIC AND SCIENTIFIC METHOD**	**2(T)**	**15**	**35**	**50**

Semester: 5

LOGIC AND SCIENTIFIC METHOD

Total Lectures 30 (T)

Course Code	Course Title	Credits		Evaluation		
		T	P	CE	SEE	TOTAL
NLOGMN356	**LOGIC AND SCIENTIFIC METHOD**	**2**		15	35	50

Credit	Contents of the course	No. of Lectures
1	**Nature of science** 1. Pure and applied Sciences. Commonsense and Science. 2. Mill's Method of Causal analysis. Mill's five methods. 3. Nature of Hypothesis, Kinds of Hypothesis	15
2	**Research Methodology in social sciences** 1. Methods of data collection: Survey, observation, Questionnaire, Interview. (Nature, types, merits and limitations of each method) 2. Distinction between Scientific Explanation and common-sense explanation 3. Types of scientific explanation: 1. D.N. Model, 2. Functional, 3. Statistical, 4. Teleological, 5.Probabilistic	15

Reference Books:

1. Nagel E. *The Structure of Science: Problem in the Logic of Scientific Explanation,*
2. MacMillan 1961.
3. Hempel C. G. *Philosophy of Natural Science*, Prentice Hall Englewood Cliff New Jercy 1966
4. Lessnoff M.H. *The Structure of Social Science: A Philosophical Introduction,* George Allan Unwin Ltd. London 1974.
5. R. Rudner, *Philosophy of Social Science,* Prentice Hall Englewood Cliff New Jercy 1966
6. Hempel C. G. *Aspects of Scientific Explanation*, Free Press New York, 1968
7. Tucker, John, *Philosophy of Social Science*.
8. देशपांडे एस.एस., गोखले पी.पी., मोरे एस.एस. *विज्ञानाचे तत्वज्ञान,* ग्रंथाली प्रकाशन , मुंबई, 2006

Course Outcomes

- Identify the limits of propositional logic and explain the need for predicate logic.
- Demonstrate his/her understanding of the nomenclature of logic
- Identify features of arguments
- Analyse propositions and arguments in propositional logic by natural deduction method
- Analyze natural language arguments by means of symbolic propositional logic
- Explain and exemplify validity of an argument.
- Explain and apply basic notions of symbolic logic