

**Modern Education Society's  
Nowrosjee Wadia College**

An autonomous College affiliated to Savitribai Phule Pune University)

**S.Y.B. A. LOGIC (Minor for B.A.)**

**Semester 3**

**Syllabus**

(Based on NEP 2.0)

**(To be implemented from the Academic Year 2025-26)**

**Objectives:**

1. To introduce 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 evaluation system and competitive examinations.

**Title of the course: B.A.**

**Structure of the Course (2(T)+2(P) Credit Course)**

**Semester: 3**

Course Code	Course Title	Credit	Evaluation		
		T/P	CE	SEE	TOTAL
PHLMN236	PREDICATE LOGIC	2(T)	15	35	50
		2(P)	15	35	50

Course Code	Course Title	Credits		Evaluation		
		T	P	CE	SEE	TOTAL
LOGMN236	PREDICATE LOGIC	2		15	35	50

**PREDICATE LOGIC**  
(2 Credit Course) Total Lectures 30

Unit	Contents of the course	No. of Lectures
1	<b>Predicate Logic</b> 1. Nature and need of Predicate Logic. 2. Singular and General Propositions, Constants and Variables (Individual and Predicate), Propositional functions, Substitution instances, Instantiation and Quantification, Universal and Existential Quantifiers.	15
2	<b>Rules of Quantification</b> 1. Need for quantification rules. 2. Nature, form and use of Quantification rules (Preliminary version).	15

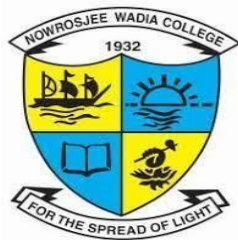
Course Code	Course Title	Credits		Evaluation		
		T	P	CE	SEE	TOTAL
LOGMN236	PREDICATE LOGIC		2	15	35	50

**Semester: 3**  
**PREDICATE LOGIC**  
(2 Credit Course) Total Practical's 60

Credit	Contents of the course	No. of Lectures
1	<b>Predicate Logic</b> 1. Symbolizing singular and general propositions	30
2	<b>Rules of Quantification</b> 1. Proving the validity of arguments involving quantification rules of Preliminary version.	30

Reference books:

1. Copi, I. M. and Cohen, Introduction to Logic, Macmillan Co. New York, 2019 Fifteen Edition.
2. Copi, I. M., Symbolic Logic, Macmillan Co. New York, 1995 (6<sup>th</sup> ed.).
3. Hughes and Londe, Elements of Formal Logic, Methuen, London, 1965. (Relevant chapters only)
4. Terrell, D.B., Logic: A Modern Introduction to Deductive Reasoning, Holt Reinhart and Winston, New York, 1967.
5. डॉ. जोशी बी. आर. कुलकर्णी एस. व्ही., मठवाले ई. आर., "तर्कविद्या - २" स्वाती प्रकाशन, पूर्णा
6. कावळे. एस. आर. आणि गोळे. लीला, 'सुगम आकारिक तर्कशास्त्र', पुणे विद्यापीठ प्रकाशन, पुणे, १९७२.
7. देशपांडे दि. य., आणि देव सुनीती, 'सांकेतिक तर्कशास्त्र', कर्मयोग, सुशीला बलराजमार्ग, नागपूर.
8. डॉ. जोशी बी. आर. कुलकर्णी एस. व्ही., मठवाले ई. आर., "तर्कविद्या - १" स्वाती प्रकाशन, पूर्णा
9. ठाकरे संतोष, 'तर्कशास्त्र', कुंभ प्रकाशन, अमरावती, २००१.
10. दर्यापूरकर, 'पारंपरिक तर्कशास्त्र', प्रकाशक: भूपाली दर्यापूरकर, १९७८, सोलापूर
11. डॉ. जोशी बी. आर. "तत्त्वज्ञान"



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## S.Y.B. A. LOGIC (Minor for B.A.)

**Semester 4**  
 (Based on NEP 2.0)

### Syllabus

(To be implemented from the Academic Year 2025-26)

#### 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 examinations.

**Title of the course: B.A.**

**Structure of the Course (2(T)+2(P) Credit Course)**

Course Code	Course Title	Credit	Evaluation		
		T/P	CE	SEE	TOTAL
LOGMN246	SET THEORY and AXIOMATIC SYSTEM	2(T)	15	35	50
		2(P)	15	35	50

**Semester: 5**

**SET THEORY and AXIOMATIC SYSTEM**

**Total Lectures 30 (T)**

Course Code	Course Title	Credits		Evaluation		
		T	P	CE	SEE	TOTAL
LOGMN246	SET THEORY and AXIOMATIC SYSTEM	2		15	35	50

Credit	Contents of the course	No. of Lectures
1	<b>Set Theory.</b> 1. The Method of Listing, Definition, 2. Types of Sets 3. Relations: Logic and Set Theory-Intersection/Conjunction, Union/Disjunction.	15
2	<b>Axiomatic System</b> 1. Nature and systematization of Axiomatic system, 2. Elements of deductive system, Characteristics of a deductive system 3. Axiomatic System of P.M. and its first 10 theorems	15

**Total Lectures 60 (P)**

Course Code	Course Title	Credits		Evaluation		
		T	P	CE	SEE	TOTAL
LOGMN246	SET THEORY and AXIOMATIC SYSTEM		2	15	35	50

1	<b>Set Theory</b> 1. Exercise on Intersection/Conjunction, Union/Disjunction.	30
2	<b>Axiomatic System</b> 1. Axiomatic System of P.M. and Proving its first 10 theorems.	30

Reference books:

1. Copi, I. M., Introduction to Logic, Macmillan Co. New York, 2019. Fifteen Edition.
2. Copi, I. M., Symbolic Logic, Macmillan Co. New York, 1995 (6th ed).
3. Hughes and Londe, Elements of Formal Logic, Methuen, London, 1965. (Relevant chapters only)
4. Robert Latta and Alexander Macbeath, The elements of Logic (Macmillan & Co. Ltd)
5. डॉ. जोशी बी. आर. कुलकर्णी एस. व्ही ., मठवाले ई. आर, "तर्कविद्या-२" स्वाती प्रकाशन, पूर्णा
6. कावळे. एस. आर. आणि गोळे. लीला, 'सुगम आकारिक तर्कशास्त्र', पुणे विद्यापीठ प्रकाशन, पुणे, १९७२.
7. देशपांडे दि. य., आणि देव सुनीती, सांकेतिक तर्कशास्त्र, कर्मयोग, सुशीला बलराजमार्ग, नागपूर.
8. डॉ. जोशी बी. आर. कुलकर्णी एस. व्ही ., मठवाले ई. आर., "तर्कविद्या-१" स्वाती प्रकाशन, पूर्णा
9. ठाकरे संतोष, तर्कशास्त्र, कुंभ प्रकाशन, अमरावती, २००१.
10. दर्यापूरकर, पारंपरिक तर्कशास्त्र, प्रकाशक: भूपाली दर्यापूरकर, १९७८, सोलापूर
11. डॉ. जोशी बी. आर. "तत्त्वज्ञान" - सामाजिक शास्त्रातील संज्ञा सिद्धांताचा कोश, काँटिनेंटल प्रकाशन, पुणे.