



Anekant Education Society's
Tuljaram Chaturchand College, Baramati
(Autonomous)

Three Year B.A. Degree Program
(Faculty of Humanities)

CBCS Syllabus

S.Y. B. A. (Logic) Semester - III

For Department of Philosophy & Logic
Tuljaram Chaturchand College, Baramati

Choice Based Credit System Syllabus (2022 Pattern)

To be implemented from Academic Year 2023-2024

CBCS Syllabus SYBA Logic
(w. e. from June, 2023)

Name of the Programme	: B.A Philosophy & Logic
Program Code	: UALO
Class	: S.Y.B.A.
Semester	: III
Course Type	: General (G-2) (Theory)
Course Name	: Symbolic Logic
Course Code	: UALO231
No. of Lectures	: 48
No. of Credits	: 03

Course Objectives:

- I. To acquaint Students with Symbolic Logic
- II. To introduce techniques of decision procedure and formal proof of validity
- III. To introduce Deductive systems and symbolizations and derivations of first order Predicate logic
- IV. Familiarise students with the importance of logical thinking in various disciplines.
- V. Introduce students to the basic concepts of formal logic.
- VI. Teach the construction and evaluation of truth tables.
- VII. Explore the use of rules of inference

Course Outcomes:

- CO1. Students can acquire critical thinking ability.
- CO2. It enhances logical reasoning capacity in the student..
- CO3. It can improve students' analytical thinking capacity.
- CO4. It helps students to improve their decision-making power.
- CO5. Students can make logical decisions in any situation. .
- CO6. Understand the fundamental concepts of formal logic..
- CO7. Construct and evaluate truth tables for complex logical expressions.

Semester- III UALO231 G-2 Symbolic Logic

Unit No.	Topics & Learning Points	No. of Hours
1	Symbolic Logic A. Introduction of Symbolic Logic. B. Classification of Propositions: Simple and Compound C. Basic Truth-functions	12
2	Decision Procedure A. Determining Propositions as: Tautologies, Contradictory and Contingent B. Methods of Decision Procedure: Truth-table, Shorter Truth-table C. Exercises and examples	12
3	Deductive proof A. Rules of Inference B. Types of deductive proof: Direct Proof and Conditional Proof C. Exercises of direct and conditional proof	12
4	Set Theory A. Introduction to Set Theory B. Types of Set C. Exercises of set examples	12

Readings: Reference Book:

1. Copi, I. M., Introduction to Logic, Macmillan Co. New York, 1986. (14th Edition)
2. Copi, I. M., Symbolic Logic, Macmillan Co. New York, 1995 (5th Ed.).
3. Patrrick Suppees (Chapter on Set Theory)
4. Symbolic logic (4thed.) I. M. Copi.
5. Formal logic : scope and limits
6. तर्कविद्या भाग १,२ डॉ. बी. आर. जोशी, प्रा. कुलकर्णी, प्रा. मठवाले
7. तर्कशास्त्र (पारंपरिक व सांकेतिक) – डॉ. सुनील ब. भोईटे
8. तर्कशास्त्र - श्रीनिवास दीक्षित
9. तर्कशास्त्राची मूलतत्त्वे वाडेकर दे.द.
10. सुलभ तर्कशास्त्र प्रा मुकुंद कदम
11. पारंपरिक तर्कशास्त्र - नांगरे, फडतारे, चौगुले, हिरवे, वाघमोडे

Choice Based Credit System Syllabus (2022 Pattern)

Mapping of Program Outcomes with Course Outcomes

Class: SYBA (Sem III)

Subject: Logic

Course: Symbolic Logic

Course Code: UALO231 (G-2)

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Programme Outcomes (POs)

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2	2	2	2	2	1	3
CO 2	2	3	2	2	2	3	1	2
CO 3	2	2	3	1	2	2	1	2
CO 4	2	2	1	3	3	2	1	3
CO 5	2	2	2	3	3	2	1	3
CO 6	3	3	2	2	3	3	1	2
CO 7	1	1	1	1	1	1	1	1

Justification for the mapping

PO1 Research-Related Skills:

- Justification: While not directly addressed in the listed Course Outcomes, research-related skills, such as critical thinking, logical reasoning, and analytical thinking, are implicitly developed through the study of formal logic and the construction and evaluation of truth tables (CO1, CO2, CO3, CO6, CO7).

PO2 Effective Citizenship and Ethics:

- Justification: CO4 involves improving decision-making power, which aligns with ethical considerations. Logical decisions in any situation (CO5) contribute to acting with an informed awareness of moral and ethical issues.

PO3 Social Competence:

- Justification: While not explicitly covered in the listed Course Outcomes, effective communication skills (CO1, CO2, CO3) contribute to building good interpersonal relationships in personal and professional life.

PO4 Disciplinary Knowledge:

- Justification: CO1 to CO7 collectively contribute to developing disciplinary knowledge in formal logic and logical reasoning, which is applied to real-world situations.

PO5 Personal and Professional Competence:

- Justification: CO1, CO2, CO4, and CO5 directly contribute to developing strong work attitudes, logical decision-making power, and professional skills that enable students to work independently and collaboratively in a team environment.

PO6 Self-directed and Life-long Learning:

- Justification: The development of critical thinking (CO1) and the ability to engage in independent and life-long learning (PO6) are interconnected. The study of formal logic (CO6, CO7) fosters skills that can be applied in a broad context of socio-technological change.

PO7 Environment and Sustainability:

- Justification: While not explicitly covered, critical thinking and problem-solving skills (CO1, CO8) can be applied to understand the impact of scientific solutions in societal and environmental contexts, aligning with the need for sustainable development.

PO8 Critical Thinking and Problem Solving:

- Justification: CO1, CO2, CO3, CO6, and CO7 directly contribute to critical thinking and problem-solving skills, including the ability to approach problems in their social environment, propose feasible solutions, and assist in their implementation.