



SECOND-YEAR OF BACHELOR OF SCIENCE MINOR MATHEMATICS REVISED SYLLABUS ACCORDING TO CBCS NEP2020

COURSE TITLE: QUANTITATIVE APTITUDE-III SEMESTER-II,
W.E.F. 2024-2025

**RECOMMENDED BY THE BOARD OF STUDIES IN MATHEMATICS
AND**

APPROVED BY THE ACADEMIC COUNCIL

Devrukh Shikshan Prasarak Mandal's

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.
Tal.Sangmeshwar, Dist. Ratnagiri-415804, Maharashtra, India

Academic Council Item No: _____

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangmeshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Science
Name of the Department	:	Mathematics
Name of the Class	:	Second Year
Semester	:	Third
No. of Credits	:	02
Title of the Course	:	Quantitative Aptitude-III
Course Code	:	MTOE201
Name of the Vertical in adherence to NEP 2020	:	Generic/ Open Elective Course
Eligibility for Admission	:	First year passed student seeking admission to second year in adherence to Rules and Regulations of the University of Mumbai and Government of Maharashtra
Passing Marks	:	40%
Mode of Assessment	:	Formative and Summative
Level	:	UG
Pattern of Marks Distribution for SEE and CIA	:	60:40
Status	:	NEP-CBCS
To be implemented from Academic Year	:	2024-2025
Ordinances /Regulations (if any)		

Syllabus for Second Year of Bachelor of Science in Mathematics

(With effect from the academic year 2024-2025)

SEMESTER-II

Paper No.– -III

Course Title: Quantitative Aptitude-III

No. of Credits - 02

Type of Vertical: Generic/ Open Elective Course

COURSE CODE: MTOE201

Learning Outcomes Based on BLOOM's Taxonomy:

After completing the course, the learner will be able to...

Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Remember	Remember the algebraic identities of School Algebra and Elementary surds (simple problems)
CLO-02	Understand	Understand concepts Graphs of Linear Equations, Similarity with elementary geometric figures and facts: Triangle and its various kinds of centres
CLO-03	Apply	Apply Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles.

Syllabus for First Year of Bachelor of Science in Mathematics

(With effect from the academic year 2024-2025)

SEMESTER-III

Paper No. – -III

Course Title: Quantitative Aptitude-III

No. of Credits - 02

Type of Vertical: Generic/ Open Elective Course

COURSE CODE: MTOE201

Module No.	Content	No. of Lectures
1	1. Basic algebraic identities of School Algebra and Elementary surds (simple problems) 2. Graphs of Linear Equations	15
2	1. Similarity with elementary geometric figures and facts: Triangle and its various kinds of centres 2. Congruence and similarity of triangles 3. Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles.	15
	Total	30

Required Previous Knowledge

Basic Mathematics Knowledge is necessary before starting to learn the course.

Access to the Course

The course is available for all the students admitted for Bachelor of Science as a Generic/ Open Elective Course(OE). The students seeking admission in other disciplines may select the course as a minor considering the terms and conditions laid down by the University of Mumbai, the Government of Maharashtra, and the college, from time to time.

Forms of Assessment

The assessment pattern would be 60:40, 60% for Semester End Examination (SEE) and 40 % for Continuous Internal Evaluation (CIA).The structure of the SEE and CIA would be as recommended by the Board of Studies and approved by the Board of Examination and the Academic Council of the college. The weightage for formative and summative assessment will be 60:40. The detailed pattern is as given below.

Term End Evaluation (30 Marks)
Question Paper Pattern
Time: 1 hour

Question No.	Question Pattern	Marks
Q.1	MCQ (based on Unit I)	15
Q.2	MCQ (based on Unit II)	15
Total		30

Internal evaluation (20 Marks)

Sr. No.	Description	Marks
1	Mid Term Examination	10
2	Active Participation in teaching learning Process	5
3	Subject related activities as assigned by the teacher	5
Total		20

Grading Scale

The grading scale used is O to F. Grade O is the highest passing grade on the grading scale, and grade F is a fail. The Board of Examinations of the college reserves the right to change the grading scale.

References:

- 1) Quantitative Aptitude by R.S Agarwal & S. Chand Publication for Competitive Exams
- 2) Oswaal Objective Quantitative Aptitude For All Competitive Examinations Chapter-wise & Topic-wise
- 3) The Pearson Guide to Quantitative Aptitude for Competitive Examinations
- 4) Teach Yourself Quantitative Aptitude for Competitive Exams – Arun Sharma
- 5) How to Prepare for Quantitative Aptitude for CAT – Arun Sharma
- 6) Practical Business Mathematics S. A. Bari New Literature Publishing Company New Delhi
- 7) Mathematics for Commerce K. Selvakumar Notion Press Chennai
- 8) Business Mathematics with Applications Dinesh Khattar & S. R. Arora S. Chand Publishing New Delhi
- 9) Operations Research P. K. Gupta & D. S. Hira S. Chand Publishing New Delhi