# Savitribai Phule Pune University

*(Formerly University of Pune)*

**Three Year B.Sc. Degree Program in Mathematics**

**(Faculty of Science & Technology)**

## F.Y.B.Sc. (Mathematics)

**Choice Based Credit System Syllabus**

**To be implemented from Academic Year 2019-2020**

Course Outcome:

Upon successful completion of this course, the student will be able to:

i) The mathematical maturity of students in their current and future courses shall develop.

ii) The student develops theoretical, applied and computational skills.

iii) The student gains confidence in proving theorems and solving problems.

**Structure of the course:**

|  | Semester - I |  | Semester -II |  | Credit |
|---|---|---|---|---|---|
| Paper I | MT-111 | Algebra | MT-121 | Analytical Geometry | 2 |
| Paper II | MT-112 | Calculus - I | MT-122 | Calculus - II | 2 |
| Paper III | MT-113 | Mathematics Practical | MT-123 | Mathematics Practical | 1.5 |

**Proposed Structure of S. Y. B. Sc. Mathematics Courses:**

|  | Semester - III |  | Semester -IV |  |  |
|---|---|---|---|---|---|
| Paper I | MT-231 | Calculus of Several Variables | MT-241 | Linear Algebra-I | 2 |
| Paper II | MT-232 (A) | Laplace Transform and Fourier Series | MT-242(A) | Vector Calculus | 2 |
|  | MT-232 (B) | Computational Geometry | MT-242(B) | Numerical Analysis | 2 |
| Paper III | MT-233 | Mathematics Practical | MT-243 | Mathematics Practical | 2 |

**Proposed Structure of T. Y. B. Sc. Mathematics Courses:**

|  | Semester- V |  | Semester- VI | Credit |
|---|---|---|---|---|
| MT 351 | Matric Spaces | MT 361 | Complex Analysis | 2 |
| MT 352 | Real Analysis-I | MT 362 | Real Analysis-II | 2 |
| MT 353 | Problem Course on MT 351 and MT 352 | MT 363 | Problem Course on MT 361 and MT 362 | 2 |
| MT 354 | Group Theory-I | MT 364 | Ring Theory-I | 2 |
| MT 355 | OrdinaryDifferential Equations–I | MT 365 | Partial Differential Equations-I | 2 |
| MT 356 | Problem Course on MT 354 and MT 355 | MT 366 | Problem Course on MT 364 and MT 365 | 2 |