



**Shrimathi Devkunvar Nanalal Bhatt Vaishnav
College for Women (Autonomous)**

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC
Chromepet Chennai-600044



DEPARTMENT OF UG MATHEMATICS (AIDED)

B.Sc. MATHEMATICS

CHOICE BASED CREDIT SYSTEM (CBCS)

&

LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (LOCF)

2023-2026 Batch



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B.Sc. MATHEMATICS CURRICULUM FRAMEWORK 2023–2026 Batch

| Year/Semester | Subject Code | Title of the Paper | Credits | CIA | SES | Total |
|-------------------------|--------------|---------------------|---------|-----|-----|-------|
| PART I | | | | | | |
| I Year Semester I | 20ULTFC1001 | Tamil I | 3 | 40 | 60 | 100 |
| | 20ULHFC1001 | Hindi I | 3 | 40 | 60 | 100 |
| | 20ULSFC1001 | Sanskrit I | 3 | 40 | 60 | 100 |
| I Year Semester II | 20ULTFC2002 | Tamil II | 3 | 40 | 60 | 100 |
| | 20ULHFC2002 | Hindi II | 3 | 40 | 60 | 100 |
| | 20ULSFC2002 | Sanskrit II | 3 | 40 | 60 | 100 |
| II Year Semester III | 20ULTFC3003 | Tamil III | 3 | 40 | 60 | 100 |
| | 20ULHFC3003 | Hindi III | 3 | 40 | 60 | 100 |
| | 20ULSFC3003 | Sanskrit III | 3 | 40 | 60 | 100 |
| II Year Semester IV | 20ULTFC4004 | Tamil IV | 3 | 40 | 60 | 100 |
| | 20ULHFC4004 | Hindi IV | 3 | 40 | 60 | 100 |
| | 20ULSFC4004 | Sanskrit IV | 3 | 40 | 60 | 100 |
| PART II | | | | | | |
| I Year Semester I | 20UGEFC1001 | General English I | 3 | 40 | 60 | 100 |
| I Year Semester II | 20UGEFC2002 | General English II | 3 | 40 | 60 | 100 |
| II Year Semester III | 20UGEFC3003 | General English III | 3 | 40 | 60 | 100 |
| II Year Semester IV | 20UGEFC4004 | General English IV | 3 | 40 | 60 | 100 |

FRAME WORK – PART III

| Year / Semester | Subject | Subject Code | Title of the Paper | Credits | CIA | SE S | Total |
|-----------------|-----------------|--------------|--|---------|-----|------|-------|
| I Year | Core Theory I | 20UMACT1001 | Trigonometry and Analytical Geometry of 2 Dimensions | 4 | 40 | 60 | 100 |
| | Core Theory II | 20UMACT1002 | Differential Calculus | 4 | 40 | 60 | 100 |
| | Allied Theory I | 20UMAAT1D01 | Allied Physics-I | 4 | 40 | 60 | 100 |



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|----------------------|---------------------|-------------|--|---|----|----|-----|
| Semester I | | | | | | | |
| I Year Semester | Core Theory III | 20UMACT2003 | Classical Algebra | 4 | 40 | 60 | 100 |
| | Core Theory IV | 20UMACT2004 | Integral Calculus & Fourier Series | 4 | 40 | 60 | 100 |
| II | Allied Theory II | 20UMAAT2D02 | Allied Physics-II | 4 | 40 | 60 | 100 |
| | Allied Practical I | 20UMAAP2001 | Allied Physics Practical | 2 | 40 | 60 | 100 |
| II Year Semester III | Core Theory V | 20UMACT3005 | Differential Equations & Laplace Transforms | 4 | 40 | 60 | 100 |
| | Core Theory VI | 20UMACT3006 | 3 Dimensional Geometry | 4 | 40 | 60 | 100 |
| | Allied Theory III | 20UMAAT3003 | Mathematical Statistics I | 4 | 40 | 60 | 100 |
| II Year Semester IV | Core Theory VII | 20UMACT4007 | Vector Calculus & Fourier Transforms | 4 | 40 | 60 | 100 |
| | Core Theory VIII | 20UMACT4008 | Statics | 4 | 40 | 60 | 100 |
| | Allied Theory IV | 20UMAAT4004 | Mathematical Statistics II | 4 | 40 | 60 | 100 |
| | Allied Practical II | 20UMAAP4002 | Mathematical Statistics II- Practical | 2 | 40 | 60 | 100 |
| III Year Semester V | Core Theory IX | 20UMACT5009 | Modern Algebra | 4 | 40 | 60 | 100 |
| | Core Theory X | 20UMACT5010 | Real Analysis | 4 | 40 | 60 | 100 |
| | Core Theory XI | | Dynamics | 4 | 40 | 60 | 100 |
| | Core Theory XI | 20UMACT5011 | Graph Theory | 4 | 40 | 60 | 100 |
| | Elective Theory I | | Mathematics Thinking in Computer Science (Course era Platform) | 5 | 40 | 60 | 100 |
| | | | Mathematics for Computer Science (Course era Platform) | | | | |
| | Core Theory XIII | 20UMACT6013 | Linear Algebra | 4 | 40 | 60 | 100 |
| | Core Theory XIV | 20UMACT6014 | Complex Analysis | 4 | 40 | 60 | 100 |



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|---|------------------------|-------------|--|---|----|----|-----|
| III Year Semester VI | Core Theory XV | 20UMACT6015 | Operations Research | 4 | 40 | 60 | 100 |
| | Elective Theory II | 2UMAET6002 | Numerical Methods | 5 | 40 | 60 | 100 |
| | Elective Theory III | 22UMAET6003 | Programming in Python (Theory and Practicals) | 3 | 40 | 60 | 75 |
| | | 22UMAEP6001 | Programming in Python - Practicals | 2 | 10 | 15 | 25 |
| | | | Programming, Data Structures and Algorithms Using Python | 5 | 40 | 60 | 100 |
| Offered to Advanced Learners – Self study paper | | | Formal Languages and Automata Theory | 5 | 40 | 60 | 100 |