Department of Mathematics
Sarat Centenary College

Academic Plan and Activities

Academic Session: 2023-2024

Distribution of syllabus into Modules and Units of B.Sc. Honours/ Major Course

CBCS / CCFUP

Semester I (CCFUP)
1st Module (July to September)

Major Course: Calculus, Geometry & Vector Calculus (MATH1011)
Credits: Lecture-3, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 15

Unit 1: Prof. Shampa Dutta
Unit 2: Dr. Pramit Rej
Unit 3: Dr. Bidyut Santra

Skill Enhancement Course: Graph Theory (MATH1051)
Credits: Lecture-2, Tutorial-1, Marks – 50, Theory – 40, Internal Assessment – 10

Unit 1 & 2: Dr. Ujjal Kumar Mukherjee

2nd Module (October to December)

Major Course: Calculus, Geometry & Vector Calculus (MATH1011)
Credits: Lecture-3, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 15

Unit 1: Prof. Shampa Dutta
Unit 4: Dr. Pramit Rej
Unit 3: Dr. Bidyut Santra

Skill Enhancement Course: Graph Theory (MATH1051)
Credits: Lecture-2, Tutorial-1, Marks – 50, Theory – 40, Internal Assessment – 10

Unit 3 & 4: Dr. Ujjal Kumar Mukherjee
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively in December)

Semester-II (CCFUP)
1st Module (January to March)

Major Course: Introductory Algebra and Number Theory (MATH2011)
Credits: Lecture-3, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 15

Unit 1: Dr. Pramit Rej
Unit 2: Prof. Shampa Dutta
Unit 3: Dr. Bidyut Santra
Unit 4: Dr. Ujjal Kumar Mukherjee

Skill Enhancement Course: Programming in C (MATH2051)
Credits: Lecture-2, Tutorial-1, Marks – 50, Theory – 40, Internal Assessment – 10

Unit 1-2: Dr. Pramit Rej
Unit 3-4: Dr. Bidyut Santra

2nd Module (April to June)

Major Course: Introductory Algebra and Number Theory (MATH2051)
Credits: Lecture-3, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 15

Unit 1: Dr. Pramit Rej
Unit 2: Prof. Shampa Dutta
Unit 3: Dr. Bidyut Santra
Unit 4: Dr. Ujjal Kumar Mukherjee

Internal Assessment: 4th Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Skill Enhancement Course: Programming in C (MATH2051)
Credits: Lecture-2, Tutorial-1, Marks – 50, Theory – 40, Internal Assessment – 10

Unit 5: Dr. Pramit Rej
Unit 6-7: Dr. Bidyut Santra

Internal Assessment: 4th Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Semester-III

1st Module (July to September)
Core Course 5: Theory of Real Functions & Introduction to Metric Space(BMH3CC05)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Dr. Ujjal Kumar Mukherjee

Core Course 6: Group Theory–I (BMH3CC06)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Dr. Bidyut Santra
Unit 3: Prof. Shampa Dutta

Core Course 7: Numerical Methods & Numerical Methods Lab (BMH3CC07)
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Unit 1-3: Dr. Pramit Rej
Practical

SEC-1

Logic and Sets (BMH3SEC11)

Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10

Unit 1-2: Dr. Ujjal Kumar Mukherjee

2nd Module (October to December)

Core Course 5: Theory of Real Functions & Introduction to Metric Space(BMH3CC05)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 3-4: Dr Ujjal Kumar Mukherjee
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively in December)

Core Course 6: Group Theory–I(BMH3CC06)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 4-5: Dr. Bidyut Santra
Unit 3: Prof. Shampa Dutta
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively in December)

Core Course 7: Numerical Methods & Numerical Methods Lab (BMH3CC07)
Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05

Unit 3-6: Dr. Pramit Rej
Practical
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively in December)

SEC-1
Logic and Sets (BMH3SEC11)

Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10

Unit 3: Dr. Ujjal Kumar Mukherjee
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively in December)

Semester IV
1st Module (January to March)
Core Course 8: Riemann Integration and Series of Functions (BMH4CC08)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit-1-3: Dr. Ujjal Kumar Mukherjee

Core Course 9: Multivariate Calculus (BMH4CC09)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1: Dr. Pramit Rej
Unit 3: Prof. Shampa Dutta

Core Course 10: Ring Theory and Linear Algebra I (BMH4CC10)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Dr. Bidyut Santra

SEC-2: Graph Theory (BMH4SEC21)
Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10
Unit 1-2: Dr Ujjal Kumar Mukherjee

2ⁿᵈ Module (April to June)

Core Course 8: Riemann Integration and Series of Functions (BMH4CC08)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit-4-5: Dr Ujjal Kumar Mukherjee

Internal Assessment: 4ᵗʰ Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Core Course 9: Multivariate Calculus (BMH4CC09)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 2: Dr. Pramit Rej
Unit 4: Prof. Shampa Dutta
Internal Assessment: 4ᵗʰ Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Core Course 10: Ring Theory and Linear Algebra I (BMH4CC10)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 3-4: Dr. Bidyut Santra

Internal Assessment: 4ᵗʰ Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

SEC-2: Graph Theory (BMH4SEC21)
Credits: Theory-2, Marks – 50, Theory – 40, Internal Assessment – 10
Unit 3: Dr. Ujjal Kumar Mukherjee
Internal Assessment: 4ᵗʰ Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Semester V

1ˢᵗ Module (July to September)
Core Course 11: Partial Differential Equations and Applications (BMH5CC11)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Dr Ujjal Kumar Mukherjee

Core Course 12: Mechanics I (BMH5CC12)

Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Dr. Pramit Rej

Discipline Specific Elective
DSE 1: Linear Programming (BMH5DSE11)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Dr. Bidyut Santra

DSE- 2: Probability and Statistics (BMH5DSE21)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Prof. Shampa Dutta

2nd Module (October to December)
Core Course 11: Partial Differential Equations and Applications (BMH5CC11)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 3: Dr. Ujjal Kumar Mukherjee
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively on December)

Core Course 12: Mechanics I (BMH5CC12)

Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 2-3: Dr. Pramit Rej
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively on December)

Discipline Specific Elective
DSE 1: Linear Programming (BMH5DSE11)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 3-4: Dr. Bidyut Santra
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively on December)

DSE- 2: Probability and Statistics (BMH5DSE21)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 3-4: Prof. Shampa Dutta
Internal Assessment: 1st Week of December

Theory and Practical Examination: as per notification of B.U. (Tentatively in December)

Semester VI
1st Module (January to March)
Core Course 13: Metric Spaces and Complex Analysis (BMH6CC13)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-3: Dr. Ujjal Kumar Mukherjee

Core Course 14: Ring Theory and Linear Algebra II (BMH6CC14)

Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1: Dr. Bidyut Santra
Unit 3: Prof. Shampa Dutta

DSE-4 : Mechanics-II (BMH6DSE43)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 1-2: Dr. Pramit Rej

Course: Project Work (BMH6PW01)
Credits: Practical-6, Marks – 75, Written Submission-40, Seminer Presentation -20, Viva-Voce-15

Name of the Teachers : Dr. Ujjal Kumar Mukherjee
Dr. Bidyut Santra
Dr. Pramit Rej
Prof. Shampa Dutta

2nd Module (April to June)
Core Course 13: Metric Spaces and Complex Analysis (BMH6CC13)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 4-6: Dr. Ujjal Kumar Mukherjee
Internal Assessment: 4th Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Core Course 14: Ring Theory and Linear Algebra II (BMH6CC14)

Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 2: Dr. Bidyut Santra
Unit 4: Prof. Shampa Dutta
Internal Assessment: 4th Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

DSE-4: Mechanics-II (BMH6DSE43)
Credits: Theory-5, Tutorial-1, Marks – 75, Theory – 60, Internal Assessment – 10, Attendance-05

Unit 2-3: Dr. Pramit Rej
Internal Assessment: 4th Week of May

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Course: Project Work (BMH6PW01)
Credits: Practical-6, Marks – 75, Written Submission-40, Seminer Presentation -20, Viva-Voce-15

Name of the Teachers: Dr. Ujjal Kumar Mukherjee
Dr. Bidyut Santra
Dr. Pramit Rej
Prof. Shampa Dutta

Theory and Practical Examination: as per notification of B.U. (Tentatively on June)

Counselling Programme – Final week of June- General outline on the admission and scope of higher education and related jobs.