# **Department of Mathematics Sarat Centenary College**

### **Academic Plan and Activities**

Academic Session: 2018-2019

### Distribution of syllabus into Modules and Units of B.Sc. Honours Course CBCS

#### Semester-1

1<sup>st</sup>Module(July to September)

Core Course 1: Calculus, Geometry & DifferentialEquations(BMH1CC01)

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

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

Core Course 2: Algebra(BMH1CC02)

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

Unit 1: Dr. Pramit Rej

Unit 2-3: Dr. Ujjal Kumar Mukherjee

### 2<sup>nd</sup> Module (October to December)

Core Course 1:Calculus, Geometry & DifferentialEquations(BMH1CC01)

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

Unit 1: Prof. Shampa Dutta Unit 2: Dr. Pramit Rej Unit 4: Dr. Bidyut Santra

**Internal Assessment: 1st Week of December** 

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

Core Course 2: Algebra(BMH1CC02)

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

Unit 1: Dr.PramitRej

Unit 4: Dr Ujjal Kumar Mukherjee

**Internal Assessment: 1st Week of December** 

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

#### **Semester-II**

### 1<sup>st</sup>Module(January to March)

Core Course 3: Real Analysis (BMH2CC03)

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

Unit 1:Dr.BidyutSantra

Unit 3: Dr.Ujjal Kumar Mukherjee

**Core Course 4: Differential Equation and Vector Calculus (BMH2CC04)** 

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

Unit 1:Dr.PramitRej

Unit 3: Dr Ujjal Kumar Mukherjee

Unit 4: Prof.Shampa Dutta

### 2<sup>nd</sup> Module (April to June)

Core Course 3: Real Analysis (BMH2CC03)

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

Unit 2:Dr.BidyutSantra

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)

**Core Course 4: Differential Equation and Vector Calculus (BMH2CC04)** 

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

Unit 2:Dr.PramitRej

Unit 3: Dr.Ujjal Kumar Mukherjee

Unit 4: Prof.Shampa Dutta

**Internal Assessment: 4th Week of May** 

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

#### Semester-III

### 1<sup>st</sup>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.BidyutSantra 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.PramitRej

Practical

### SEC-1 Logic and Sets(BMH3SEC11)

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

Unit 1-2: Dr.Ujjal Kumar Mukherjee

### 2<sup>nd</sup> 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.BidyutSantra 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.PramitRej

**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.PramitRej

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.BidyutSantra

**SEC-2:Graph Theory (BMH4SEC21)** 

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

Unit 1-2: Dr Ujjal Kumar Mukherjee

2<sup>nd</sup> 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.PramitRej

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.BidyutSantra

**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: 4<sup>th</sup> Week of May

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

Semester V

1<sup>st</sup>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.PramitRej

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.BidyutSantra

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

2<sup>nd</sup> 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.PramitRej

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.BidyutSantra

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.BidyutSantra **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.PramitRej

**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.BidyutSantra Dr.PramitRej **Prof.Shampa Dutta** 

2<sup>nd</sup> 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: 4<sup>th</sup> 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.BidyutSantra **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.PramitRej Internal Assessment: 4<sup>th</sup> 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.BidyutSantra Dr.PramitRej **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.