

**Department of Botany  
Sarat Centenary College**

**Academic Plan and Activities**

**2020-21**

**Distribution of syllabus into Modules and Units of B.Sc. General Course CBCS**

**SEMESTER-1**

**Orientation Programme – 1<sup>st</sup> week of July - General outline on the emergence of Botany as an academic discipline and its Scope & Importance along with brief introduction programme**

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

**Core Course (CC-IA): Biodiversity (Microbes, Algae, Fungi and Archegoniate)**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 1: Microbes**

**Unit 2: Algae**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 3: Fungi**

**Unit 4: Introduction to Archegoniate**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

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

**Core Course (CC-IA): Biodiversity (Microbes, Algae, Fungi and Archegoniate)**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 5: Bryophytes**

**Unit 6: Pteridophytes**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 7: Gymnosperms**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**Internal Assessment : 1<sup>st</sup> 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 (CC- 1B) : Plant Ecology and Taxonomy**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 1: Introduction**  
**Unit 2: Ecological factors**  
**Unit 3: Plant communities**  
**Unit 4: Ecosystem**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 5: Phytogeography**  
**Unit 6 Plant taxonomy**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

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

**Core Course (CC- 1B) : Plant Ecology and Taxonomy**  
**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 7 Identification**  
**Unit 8 Taxonomic evidences**  
**Unit 9 Taxonomic hierarchy**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 10 Botanical nomenclature**  
**Unit 11 Classification**  
**Unit 12 Biometrics, numerical taxonomy and cladistics**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**Internal Assessment : 4<sup>th</sup> 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 (CC- 1C): Plant Anatomy and Embryology**  
**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 1: Meristematic and permanent tissues**  
**Unit 2: Organs**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 3: Secondary Growth**  
**Unit 4: Adaptive and protective systems**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

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

**Core Course (CC- 1B) : Plant Ecology and Taxonomy**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 5: Structural organization of flower**

**Unit 6: Pollination and fertilization**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 7: Embryo and endosperm**

**Unit 8: Apomixis and polyembryony**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**Internal Assessment : 1<sup>st</sup> Week of December**

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

**SEMESTER IV**

**1<sup>st</sup> module (January to March)**

**Core Course ( CC- 1D ) : Plant Physiology and Metabolism**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 1: Plant-water relations**

**Unit 2: Mineral nutrition**

**Unit 3: Translocation in phloem**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 4: Photosynthesis**

**Unit 5: Respiration**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**Skill Enhancement Course**

**SEC 2 : Medicinal Botany**

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

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 1: History, Scope and Importance of Medicinal Plants.**

**Unit 2: Conservation of endangered and endemic medicinal plants.**

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

**Core Course ( CC- 1D ) : Plant Physiology and Metabolism**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : & Dr. K. M. Hasib**

**Unit 6: Enzymes**

**Unit 7: Nitrogen metabolism**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 8: Plant growth regulators**

**Unit 9: Plant response to light and temperature**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**SEC 2 : Medicinal Botany**

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

**Name of the teacher : Dr. K. M. Hasib**

**Unit 3: Ethnobotany and Folk medicines.**

**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)**

**Discipline Specific Elective**

**DSE 1A : Economic Botany and Biotechnology**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 1: Origin of Cultivated Plants**

**Unit 2: Cereals**

**Unit 3: Legumes**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 4: Spices**

**Unit 5: Beverages**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

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

**DSE 1A : Economic Botany and Biotechnology**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 6: Oils and Fats**

**Unit 7: Fibre Yielding Plants**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 8: Introduction to biotechnology**

**Unit 9: Plant tissue culture**

**Unit 10: Recombinant DNA Technique**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**Internal Assessment : 1<sup>st</sup> Week of December**

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

**SEMESTER VI**  
**1<sup>st</sup> module (January to March)**

**Discipline Centric Elective**

**DSE 1B : Cell Biology, Genetics and Molecular Biology**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 1: Techniques in Biology**

**Unit 2: Cell as a unit of Life**

**Unit 3: Linkage and Crossing over**

**Unit 4: Mutations and Chromosomal Aberrations**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 5: Cell Organelles**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**SEC 4 : Ethnobotany**

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

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 1: Ethnobotany :**

**Unit 2: Methodology of Ethnobotanical studies**

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

**DSE 1B : Cell Biology, Genetics and Molecular Biology**

**Credits: Theory-4, Practical-2, Marks – 75, Theory – 40, Practical – 20, Internal Assessment – 10, Attendance-05**

**Name of the teacher : Dr. Quazi Taheruzzaman**

**Unit 6: Cell Membrane and Cell Wall**

**Unit 7: Cell Cycle**

**Name of the teacher : Dr. K. M. Hasib**

**Unit 8: Genetic material**

**Unit 9: Transcription (Prokaryotes and Eukaryotes)**

**Unit 10: Regulation of gene expression**

**Name of the teacher : Dr. Quazi Taheruzzaman & Dr. K. M. Hasib**

**Practical**

**SEC 4 : Ethnobotany**

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

**Name of the teacher : Dr. K. M. Hasib**

**Unit 3: Role of ethnobotany in modern Medicine**

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

**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**