Department of Botany
Sarat Centenary College

CBCS HONOURS

Teaching Assignment : 2020--2021

Semester-1

Core Course I: Microbiology and Phycology
Name of the teacher : Dr. K. M. Hasib
Unit 1: Introduction to microbial world
Unit 2: Viruses
Unit 3: Bacteria
Unit 4: Algae
Unit 5: Cyanophyta and Xanthophyta
Unit 6: Chlorophyta and Charophyta
Unit 7: Phaeophyta and Rhodophyta
Practical

Core Course II: Archegoniate
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Introduction
Unit 2: Bryophytes
Unit 3: Type Studies
Unit 4: Pteridophytes
Unit 5: Type Studies- Pteridophytes
Unit 6: Gymnosperms
Practical

Semesterr-II

Core Course III: Mycology and Phytopathology
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Introduction to true fungi
Unit 2: Chytridiomycota and Zygomycota
Unit 3: Ascomycota
Unit 4: Basidiomycota
Unit 5: Allied Fungi
Unit 7: Symbiotic associations
Unit 8: Applied Mycology
Unit 9: Phytopathology
Practical
Plant Pathology
Practical

Core Course IV: Morphology & Anatomy of Angiosperms
Name of the teacher : Dr. K. M. Hasib
Unit 1: Introduction and scope of Plant Anatomy
Unit 2: Structure and Development of Plant Body
Unit 3: Tissues
Unit 4: Apical meristems
Unit 5: Vascular Cambium and Wood
Unit 6: Adaptive and Protective Systems
Unit 7: Leaves and Inflorescence

Unit 8: Flower, Fruit and Seed
Practical

Semesterr-III

Core Course 5 : Plant Ecology and Phytogeography
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Introduction
Unit 2: Soil
Unit 3: Water
Unit 4: Light, temperature, wind and fire
Unit 4: Ecosystem
Unit 6: Population ecology
Unit 7: Plant communities
Unit 8: Functional aspects of ecosystem
Unit 9: Phytogeography
Practical

Core Course 6 : Plant Systematics
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Significance of Plant systematics
Unit 2: Taxonomic hierarchy
Unit 3: Botanical nomenclature
Unit 4: Systems of classification
Unit 5: Biometrics, numerical taxonomy and cladistics
Unit 6: Phylogeny of Angiosperms
Practical

Core Course 7 : Economic Botany
Name of the teacher : Dr. K. M. Hasib
Unit 1: Origin of Cultivated Plants
Unit 2: Cereals
Unit 3: Legumes
Unit 4: Sources of sugars and starches
Unit 5: Spices
Unit 6: Beverages
Unit 7: Sources of oils and fats Unit 8: Natural Rubber Para-rubber: tapping, processing and uses.
Unit 9: Drug-yielding plants
Unit 10: Timber plants.
Unit 11: Fibers
Practical

SEC-1
Agricultural Botany
Name of the teacher : Dr. K. M. Hasib
Unit: 1 Plant physiology
Unit: 2 Organic farming
Unit:3 Plant breeding, Tissue culture and Biotechnology
Practical

Semester IV

Core Course 8: Palaeobotany & Palynology
Name of the teacher : Dr. Quazi Taheruzzaman
Unit-1. Introduction
Unit-2. Definition of fossil
Unit-3. Introductory idea
Unit-4. Age of the earth
Unit-5. Microsporogenesis

Unit-6. Ovules; megasporogenesis.
Unit-7. Pollination
Practical

Core Course 9 : Biomolecules and Cell Biology
Name of the teacher : Dr. K. M. Hasib
Unit 1: Biomolecules
Carbohydrates, Lipids, Proteins & Nucleic acids
Unit 2: Bioenergenetics
Unit 3: Enzymes
Unit4: The cell
Unit 5: Cell wall and plasma membrane
Unit 6: Cell organelles
Unit 7: Cell division
Practical

Core Course 10 : Molecular Biology
Name of the teacher : Dr. K. M. Hasib
Unit 1: Nucleic acids: Carriers of genetic information
Unit 2. The Structures of DNA and RNA / Genetic Material lectures)
Unit 3:The replication of DNA
Unit 4: Central dogma and genetic code lectures)
Unit 4: Transcription
Unit 5: Processing and modification of RNA
Unit 6: Translation
Practical

SEC-2: Biofertilizers
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: General account
Unit 2: *Azospirilium*:
Unit 3: Cyanobacteria
Unit 4: Mycorrhiza
Unit 5: Organic farming

Semester V

Core Course 11 : Plant Physiology
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Plant-water relations
Unit 2: Mineral nutrition
Unit 3: Nutrient Uptake
Unit 4: Translocation in the phloem
Unit 5: Plant growth regulators
Unit 6: Physiology of flowering
Unit 7: Phytochrome , crytochromes and phototropins
Practical

Core Course 12 : Plant Metabolism
Name of the teacher : Dr. K. M. Hasib
Unit 1: Concept of metabolism
Unit 2: Carbon assimilation
Unit 3: Carbohydrate metabolism
Unit 4: Carbon Oxidation
Unit 5: ATP-Synthesis
Unit 6: Lipid metabolism
Unit 7: Nitrogen metabolism
Practical

Discipline Specific Elective
DSE 1: Reproductive Biology of Angiosperms
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Introduction
Unit 2: Reproductive development
Unit 3: Anther and pollen biology
Unit 4: Ovule
Unit 5: Self incompatibility
Unit 6: Embryo, Endosperm and Seed
Units 7: Polyembryony and apomixis
Practical

DSE- 2 : Biostatistics
Name of the teacher : Dr. K. M. Hasib
Unit 1: Biostatistics
Unit 2: Collection of data primary and secondary
Unit 3: Measures of central tendency
Unit 4: Correlation
Unit 5: Statistical inference
Practical

Semester VI

Core Course 13 : Genetics & Plant Breeding
Name of the teacher : Dr. K. M. Hasib
Unit 1: Mendelian genetics and its extension
Unit 2: Extrachromosomal Inheritance
Unit 4: Variation in chromosome number and structure
Unit 5: Gene mutations
Unit 6: Fine structure of gene
Unit 7. Population and Evolutionary Genetics
Unit-8 : Plant Breeding
Unit 9: Methods of crop improvement
Unit 10: Inbreeding depression and heterosis
Unit 11: Crop improvement and breeding
Practical

Core Course 14: Plant Biotechnology
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Plant Tissue Culture
Unit 2: Recombinant DNA technology
Unit 3:Gene Cloning
Unit 4: Methods of gene transfer
Unit 5: Applications of Biotechnology
Practical

DSE-3 : Plant Evolution and Biodiversity
Name of the teacher : Dr. Quazi Taheruzzaman
Unit 1: Earliest forms of plant life
Unit 2: Evolutionary trends
Unit 3: Phylogeny of plants
Unit 4:Evolutionary theories:
Unit 5: Plant diversity
Practical

DSE-4 : Horticultural Practices and Post-Harvest Technology
Name of the teacher : Dr. K. M. Hasib
Unit 1: Introduction

Unit 2: Ornamental plants
Unit 3: Fruit and vegetable crops
Unit 4: Horticultural techniques
Unit 5: Landscaping and garden design
Field trip and Practical
Unit 6: Floriculture
Unit 8: Disease control and management
Unit 7: Post-harvest technology
Unit 9: Horticultural crops - conservation and management
Field trip and Practical