J.J. College of Arts & Science (Autonomous), Pudukkottai

PG and Research Department of Botany

Course Outcomes

B.Sc. Botany – USBO

Course Name - Algae, Fungi, Lichens, Plant Pathology and Bryophytes	Course Code - U1RBOCC1
Upon Completion of the course students would be able to	
CO 1	explain the importance of microbial diversity.
CO 2	describe the distribution and occurrence of lower plants.
CO 3	analyse the differences between various microbes and know the economic importance of the microbes in day to day life.
CO 4	get placement as lower plant taxonomist.
CO 5	start consultancy to advice farmers on various plant diseases.
Course Name - Major Practical - I	Course Code - U1RBOCC2P
Upon Completion of the course students would be able to	
CO 1	able to understand the structure and reproduction of certain selected algae, fungi and bryophytes.
CO 2	learn about the importance of the plant diversity.
CO 3	get employability as lower plant taxonomist.
CO 4	exposure field characters of primitive plants.
CO 5	study the specific plant diseases
Course Name – Pteridophytes, Gymnosperms and Paleobotany	Course Code – U2RBOCC3
Upon Completion of the course students would be able to	
CO 1	learn about the structure and reproductive of certain selective species of Pteridophytes and Gymnosperms.
CO 2	learn few representatives of fossils forms.
CO 3	get employment in Botanical Survey of India.
CO 4	identify plants of economic and research interest.
CO 5	study the principles and methods in Palaeobotany

Course Name - Major Practical - II	Course Code – U2RBOCC4P

Upon Completion of the course students would be able to	
CO 1	understand morphology and internal structure of some selected species of Pteridophyte and Gymnosperms.
CO 2	know fossils structures internally.
CO 3	get employment in Botanical Survey of India as a lower plants taxonomist.
CO 4	know the internal structure of selected gymnosperms
CO 5	study the pattern and importance of the palaeobotany
Course Name - Anatomy and Embryology of Angiosperms	**Course Code – U3RBOCC5**
Upon Completion of the course students would be able to	
CO 1	Classify the meristimatic and permanent tissues based on origin and position.
CO 2	Compare the different theories of tissues.
CO 3	Explain the types of ovules.
CO 4	understand double staining technique.
CO 5	employment in Biodiversity Conservation Centres and Artificial Pollination Centres.
Course Name – Major Practical - III	**Course Code – U3RBOCC6P**
Upon Completion of the course students would be able to	
CO 1	performs double staining permanent slide mounting.
CO 2	understand the various components of stem and wood during its secondary growth.
CO 3	enlighten bout the mechanism of pollination and basic structure of the embryo.
CO 4	prepare the permanent slides and leads to entrepreneurial skill in bioscience products
CO 5	perform the pollen morphological variations

Course Name - Morphology, Taxonomy of Angiosperms and Economic Botany	Course Code – U4RBOCC7
Upon Completion of the course students would be able to	

CO 1	understand various angiosperm plant habits.
CO 2	comprehend the concepts of plant taxonomy and classification of angiosperms.
CO 3	prepare the Herbarium.
CO 4	get employment in BSI.
CO 5	identify the binominal of plants under natural environment.
Course Name - Major Practical - IV	Course Code – U4RBOCC8P
Upon Completion of the course students would be able to	
CO 1	understand various angiosperm plant habits.
CO 2	comprehend the concepts of plant taxonomy and classification of angiosperms.
CO 3	prepare the Herbarium.
CO 4	get employment in BSI.
CO 5	identify the binominal of plants under natural environment.
Course Name – Microbiology and Immunology	Course Code – U4RBOMBE1
Upon Completion of the course students would be able to	
CO 1	understand how to analyse the basic concepts, methods, scope and classification of micro organisms.
CO 2	learn the classification and replication of viruses.
CO 3	get clear idea about the human immune system and interaction against pathogens.
CO 4	Get employments in national virology laboratories.
CO 5	beecome as a microbiologist in clinical and water plant (RO) industries.

Course Name - Mushroom Technology	Course Code – U4RBOSBE1
Upon Completion of the course students would be able to	

CO 1	**acquire sufficient academic and practical experience in the field of mushroom cultivation.**
CO 2	**become self-employed in the mushroom.**
CO 3	**empower with entrepreneurial skill thing production and disease management of mushrooms.**
CO 4	**get employment in national virology laboratories.**
CO 5	**become as be a microbiologist in clinical and water plant (RO) industries.**
Course Name - Cell and Molecular Biology	**Course Code – U5RBOCC9**
Upon Completion of the course students would be able to	
CO 1	**understand the basic concept of molecular biology and genetic engineering.**
CO 2	**understand the cell organelles and their functions.**
CO 3	**understand the mitosis and meiosis and its importance.**
CO 4	**get employment inbiology instrumentation labs and Molecular Biology Research Centre.**
CO 5	**get clear idea about employability skills of cell and molecular biology**
Course Name - Biophysics, Biochemistry and Plant Physiology	**Course Code – U5RBOCC10**
Upon Completion of the course students would be able to	
CO 1	**learn analytical and presentation skill on bio-molecular level.**
CO 2	**understand and appreciate the plant world we depend on.**
CO 3	**know about the basic principles of plant function, metabolism, secondary products, cell physiology and principles of growth and development.**
CO 4	**get employment in plant growth centres, plant tissue culture and grafting centre.**
CO 5	**understand the applications of Plant growth promoters**

Course Name - Major Practical - V	Course Code - U5RBOCC11P
Upon Completion of the course students would be able to	
CO 1	learn procedure for isolation the genomic DNA
CO 2	understand the estimation procedure for the certain phytochemical content of the plant
CO 3	performed the experiments in plant physiology
CO 4	get placement in plant tissue culture labs and plant growth centre
CO 5	Get basics knowledge on nursery and micro propagation of ornamental plants
CO 6	understand and measure the plant growth as well as photo-movement
Course Name - Plant Breeding, Horticulture and Landscape Designing	Course Code - U5RBOMBE2
Upon Completion of the course students would be able to	
CO 1	know various methods of selection in plant breeding
CO 2	get information on the mutation and level of ploidy
CO 3	learn the landscape designing methods
CO 4	get employment in agriculture and horticulture centres and plant breeding centre
CO 5	become an entrepreneur by ornamental plant propagation
Course Name - Bio-Fertilizer Production and Applications	Course Code - U5RBOSBE2
Upon Completion of the course students would be able to	
CO 1	understand bio fertilizers are only source for recovery the soil fertility
CO 2	know the organism identity and their applications
CO 3	learn the methods for large scale production of bio fertilizers
CO 4	get employment in biofertilizers companies and they could become as entrepreneurs
CO 5	get exposure on entrepreneurial skills

Course Name - Vermi-Technology		Course Code - U5RBOIDC1
Upon Completion of the course students would be able to		
CO 1	learn the biology of earthworm and its application	
CO 2	understand the basic knowledge on vermicompost bed preparation	
CO 3	understand has to recycle house made wastes and cattle wastes	
CO 4	become as entrepreneur	
CO 5	understand the marketing strategy of very-products	
Course Name - Ecology and Phytogeography		Course Code - U6RBOCC12
Upon Completion of the course students would be able to		
CO 1	learn basic knowledge about environment issues	
CO 2	knowledge about the role of man in protecting the environment	
CO 3	understand the biodiversity conservation and participation in conservation activities	
CO 4	get employment in pollution Board and Environment and Forest Conservation Department	
CO 5	get clear idea about Tamil Nadu forest and forest oriented industries	
Course Name - Bioinstrumentation and Biostatistics		Course Code - U6RBOCC13
Upon Completion of the course students would be able to		
CO 1	understand the principles, procedures and application of certain instruments	
CO 2	understand data collection and handling methods	
CO 3	workout the biostatistics formulas	
CO 4	get employment in instrumentation laboratory in research industries	
CO 5	learn the data analysis and their interpretations	

Course Name - Major Practical - VI		Course Code - U6RBOCC14P
Upon Completion of the course students would be able to		
CO 1	acquire knowledge an species and genus diversity of plant ecology	
CO 2	perform the plant tissue culture with various explants by direct and indirect methods	
CO 3	learn the basic principles, producers and application for certain bio instruments	
CO 4	get employment in environment forest department, plant tissue laboratory and biotechnology research centre	
CO 5	understand and perform the instruments which relevant to molecular biology	
Course Name - Plant Biotechnology		Course Code - U6RBOMBE2
Upon Completion of the course students would be able to		
CO 1	understand importance of applications of biotechnology day to day life	
CO 2	learn handling methods of vectors in plant genome	
CO 3	gain the uses of r-DNA technology	
CO 4	get employment in biotechnology research laboratory	
CO 5	know the latest learning the field of molecular biology	