Department of Botany

Raghunath Girls' Post Graduate College, Meerut

Semester: I/II

Paper- Minor/ Elective

Subject: Offered by Botany

Course Code: Q10006	**Course Title: Disaster Management system in India**

Course outcomes:

1. The course focuses on basic concept of disaster(s) and disaster management, their significance andtypes.
2. The course will enable to develop the analytical skills to study relationship between vulnerability,disasters, disaster prevention and risk reduction.
3. The knowledge creates awakened group for integrated disaster management in the country.
4. It will enable young people in each city district or village to understand and explore avenues of reducing disaster risks and work towards preparedness and contribute towards minimizing losses andsaving lives.

Semester: III/IV

Paper- Minor/ Elective

Subject: Offered by Botany

Course Code: Q10013	**Course Title: Global Environment and Challenges**

Course outcomes:

1. To acquaint the students with complex environment and global change driven by humans, their impactand mitigation;
2. To make them understand importance of biodiversity, conservation and its rolein maintaining structure and health of global ecology.
3. This knowledge is critical in understanding the adverse impact of human's consumeristnature, evolving strategies for sustainable development and natural resource management.
4. It will enable the students to know more about the challenges posed by massive economicgrowth, reckless development, unplanned strategies, and over utilization of natural resources.
5. It will facilitate the students to critically examine the leading discussion and practices of development, so as to enable them to participate effectively in decision making at various levels.

DEPARTMENT OF BOTANY

RAGHUNATH GIRLS' POST GRADUATE COLLEGE, MEERUT

B. Sc. (NEP 2020)

Course Outcomes

B.Sc. (NEP) Ist Year	**Ist Semester**	**Microbiology & Plant Pathology**
	IInd Semester	**Archegoniates &Plant Architecture**

Course Outcomes: After the completion of the course the students will be able to:

1. Develop understanding about the classification and diversity of different microbes including viruses, Algae, Fungi & Lichens & their economic importance.
2. Develop conceptual skill about identifying microbes, pathogens, biofertilizers & lichens.
3. Gain knowledge about developing commercial enterprise of microbial products.
4. Learn host –pathogen relationship and disease management.
5. Learn Presentation skills (oral & writing) in life sciences by usage of computer & multimedia.

Course Outcomes: After the completion of the course the students will be able to:

1. Develop critical understanding on morphology, anatomy and reproduction of Bryophytes, Pteridophytes and Gymnosperms
2. Understanding of plant evolution and their transition to land habitat.
3. Understand morphology, anatomy, reproduction and developmental changes therein through typological study and create a knowledge base in understanding the basis of plant diversity, economic values & taxonomy of plants

B.Sc. (NEP) IInd Year	**IIIrd Semester**	**Flowering Plants Identification &Aesthetic Characteristics**
	IVth Semester	**Economic Botany, Ethnomedicine & Phytochemistry**

Course Outcomes: After the completion of the course the students will be able to:

1. To gain an understanding of the history and concepts underlying various approaches to plant taxonomy and classification.
2. To learn the major patterns of diversity among plants, and the characters and types of data used to classify plants.
3. To compare the different approaches to classification with regard to the analysis of data.
4. To become familiar with major taxa and their identifying characteristics, and to develop in depth knowledge of the current taxonomy of a major plant family.
5. To discover and use diverse taxonomic resources, reference materials, herbarium collections, publications.

For the entrepreneur career in plants, one can establish a nursery, Start a landscaping business, Set up a farm Or Run a plantation consultancy firm.

Course Outcomes: After the completion of the course the students will be able to:

1. Understand about the uses of plants –will know one plant-one employment
2. Understand phytochemical analysis related to medicinally important plants and economic products produced by the plants

know about the importance of Medicinal plants and its useful parts, economically important plants in our daily life and also about the traditional medicines and herbs, and its relevance in modern times.

B.Sc. (NEP) IIIrd Year	**Vth Semester**	**Plant Physiology, Metabolism & Biochemistry (Paper 1)**
		Molecular Biology & Bioinformatics (Paper 2)
	VIth Semester	**Cytogenetics, Plant Breeding & Nanotechnology (Paper 1)**
		Ecology & Environment (Paper)

Course Outcomes: After the completion of the course the students will be able to:

1. Understand the role of Physiological and metabolic processes for plant growth and development.
2. Learn the symptoms of Mineral Deficiency in crops and their management.
3. Assimilate Knowledge about Biochemical constitution of plant diversity.

Know the role of plants in development of natural products, nutraceuticals, dietary supplements, antioxidants

Course Outcomes: After the completion of the course the students will be able to:

1. Understand nucleic acids, organization of DNA in prokaryotes and Eukaryotes, DNA replication mechanism, genetic code and transcription process.
2. Know about Processing and modification of RNA and translation process, function and regulation of expression.
3. Gain working knowledge of the practical and theoretical concepts of bioinformatics

Course Outcomes: After the completion of the course the students will be able:

1. Acquire knowledge on cell ultrastructure.
2. Understand the structure and chemical composition of chromatin and concept of cell division.
3. Interpret the Mendel's principles, acquire knowledge on cytoplasmic inheritance and sex-linked inheritance.

Understand the concept of 'one gene one enzyme hypothesis' along with the molecular mechanism of mutation.

Course Outcomes:

1. acquaint the students with complex interrelationship between organisms and environment;
2. make them understand methods for studying vegetation, community patterns and processes, ecosystem functions, and principles of phytogeography.

This knowledge is critical in evolving strategies for sustainable natural resource management and biodiversity conservation.