

BSc (MPC)

Programme Outcomes

1. Scientific temper will be developed in Students.
2. Students will acquire basic Practical skills & Technical knowledge along with domain knowledge of different subjects in the science stream.
3. Students will become employable; they will be eligible for career opportunities in Industry, or will be able to opt for entrepreneurship.
4. Students will possess basic subject knowledge required for higher studies, professional and applied courses like Management Studies, Law etc.
5. Students will be aware of and able to develop solution-oriented approach towards various Social and Environmental issues.
6. The students would learn about the behaviour of physical bodies it provides the basic concepts related to the motion of all the objects around us in our daily life.
7. The course builds a foundation of various applied field in science and technology; especially in the field of mechanical engineering.
8. The course comprises of the study vectors, laws of motion, momentum, energy, rotational motion, gravitation, fluids, elasticity and special relativity.
9. Communication skills: Chemistry graduates are expected to possess minimum standards of communication skills expected of a science graduate in the country. Graduates are expected to be well-versed in speaking and communicating their idea/finding/concepts to wider audience
10. Critical thinking: Chemistry graduates are expected to know basics of cognitive biases, mental models, logical fallacies, scientific methodology and constructing cogent scientific arguments.
11. Problem-solving: Graduates are expected to be equipped with problem-solving philosophical approaches that are pertinent across the disciplines;
12. Analytical reasoning: Graduates are expected to acquire formulate cogent arguments and spot logical flaws, inconsistencies, circular reasoning etc.
13. Graduates are expected to be keenly observant about what is going on in the natural surroundings to awake their curiosity.
14. Teamwork: Graduates are expected to be team players, with productive co-operations involving members from diverse socio-cultural backgrounds.

Programme Specific Outcomes

1. Scientific temper will be developed in Students.
2. Students will acquire basic Practical skills & Technical knowledge along with domain knowledge of different subjects in the science stream.
3. Students will become employable; they will be eligible for career opportunities in Industry, or will be able to opt for entrepreneurship.
4. Students will possess basic subject knowledge required for higher studies, professional and applied courses like Management Studies, Law etc.
5. Students will be aware of and able to develop solution-oriented approach towards various Social and Environmental issues.
6. Student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology.
7. Student should get adequate exposure to global and local concerns that explore them many aspects of mathematical sciences.
8. Student is equipped with mathematical modeling ability, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
9. Student should be able to apply their skills and knowledge that is translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.
10. Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.
11. Acquire comprehensive knowledge and skills.
12. Make use of the knowledge in an innovative manner.
13. Effectively apply the knowledge and skills to address various issues.
14. Learn “how to learn”- Self-motivated and self-directed learning.
15. Adapt to the ever-emerging demands of work place and life.
16. Be inquisitive and establish cause and effect relationship.
17. Investigate and report.

18. Use ICT effectively.
19. Access, retrieve and use authenticated information.
20. Access, retrieve and use authenticated information. Have knowledge of software applications to analyze data.
21. Develop rationale and scientific thinking process.
22. Use technology intelligently for communication, entertainment and for the benefit of mankind.
23. Ensure ethical practices throughout ones endeavors for the well-being of human race.
24. Predict and analyze problems.
25. Frame hypotheses.
26. Investigate and interpret empirical data.
27. Plan and execute action.
28. Work efficiently as an individual
29. Cooperate, coordinate and perform effectively in diverse teams/groups.
30. Prioritize common interest to individual interest.
31. Express thoughts in an effective manner
32. Listen, understand and project views in a convincing manner.
33. Decide appropriate media to share information
34. Develop skills to present significant information clearly and concisely to interested groups.
35. Understand sensibly the Environmental challenges.
36. Think critically on environment sustainability measures.
37. Propagate and follow environment friendly practices.
38. Render service for the general good of the society.
39. Involve voluntarily in social development activities at Regional, National, global levels.
40. Have own pride in volunteering to address societal issues viz: calamities, disasters, poverty, epidemics.
41. Be a patriotic citizen to uphold the values of the nation
42. Identify the goals, objectives and components of a project and decide the appropriate time of completion.
43. Plan, organize and direct the endeavors of teams to achieve the set targets in time.
44. Be competent in identifying opportunities and develop strategies for contingencies.

BSc (BZC)

Programme Outcomes

1. Understand the basic concepts of Botany in relation to its allied core courses.
2. Perceive the significance of microbes and Plants for human welfare, and structural and functional aspects of Plants.
3. Demonstrate simple experiments related to plant sciences, analyze data, and interpret them with theoretical knowledge.
4. To provide a comprehensive knowledge on various aspects related to microbes and plants.
5. To deliver knowledge on latest developments in the field of Plant Sciences with a practical approach.
6. To produce a student who thinks independently, critically and discuss various aspects of Plant life.
7. To enable the graduate to prepare and pass through national and international examinations related to Botany.
8. To empower the student to become an employee or an entrepreneur in the field of Botany/Biology and to serve the nation.
9. Social Interaction: During field visits social interaction with locals.
10. Effective Citizenship: Work in multi-disciplinary environments and be responsive to the changing needs of the society.
11. Ethics: Students learn ethical approach, to conserve diversity of animal kingdom.
12. Environment and Sustainability: understand the issues of environmental contexts and sustainable development.
13. Self-directed and Lifelong learning: Engage in lifelong learning, apply the knowledge judiciously and remain continuously employable.
14. To provide Knowledge of various animals from primitive to highly evolved forms and its complexity.
15. To foster curiosity in the students for Zoology & understand potential of various branches of Zoology.
16. To equip students with laboratory skills as well as field-based studies to become a successful entrepreneur.
17. To make aware about ways of conservation and sustainability.
18. To inculcate knowledge and make successful career in zoology.

19. Communication skills: Chemistry graduates are expected to possess minimum standards of communication skills expected of a science graduate in the country. Graduates are expected to be well-versed in speaking and communicating their idea/finding/concepts to wider audience
20. Critical thinking: Chemistry graduates are expected to know basics of cognitive biases, mental models, logical fallacies, scientific methodology and constructing cogent scientific arguments.
21. Problem-solving: Graduates are expected to be equipped with problem-solving philosophical approaches that are pertinent across the disciplines;
22. Analytical reasoning: Graduates are expected to acquire formulate cogent arguments and spot logical flaws, inconsistencies, circular reasoning etc.
23. Graduates are expected to be keenly observant about what is going on in the natural surroundings to awake their curiosity.
24. Teamwork: Graduates are expected to be team players, with productive co-operations involving members from diverse socio-cultural backgrounds.

Programme Specific Outcomes

1. Understand the basic concepts of Botany in relation to its allied core courses.
2. Perceive the significance of microbes and Plants for human welfare, and structural and functional aspects of Plants.
3. Demonstrate simple experiments related to plant sciences, analyse data, and interpret them with theoretical knowledge.
4. Work in teams with enhanced inter-personal skills.
5. Develop the critical thinking with scientific temper.
6. Effectively communicate scientific ideas both orally and in writing.
7. To provide a comprehensive knowledge on various aspects related to microbes and plants.
8. To deliver knowledge on latest developments in the field of Plant Sciences with a practical approach.
9. To produce a student who thinks independently, critically and discuss various aspects of Plant life.
10. To enable the graduate to prepare and pass through national and international

examinations related to Botany.

11. To empower the student to become an employee or an entrepreneur in the field of Botany/Biology and to serve the nation.
12. Critical thinking: The curriculum helps to enhance the ability and thinking power of students.
13. Effective Communication: acquire communication skill through debates, seminars and presentations.
14. Social Interaction: During field visits social interaction with locals.
15. Effective Citizenship: Work in multi-disciplinary environments and be responsive to the changing needs of the society.
16. Ethics: Students learn ethical approach, to conserve diversity of animal kingdom.
17. Environment and Sustainability: understand the issues of environmental contexts and sustainable development.
18. Self-directed and Lifelong learning: Engage in lifelong learning, apply the knowledge judiciously and remain continuously employable.
19. To provide Knowledge of various animals from primitive to highly evolved forms and its complexity.
20. To foster curiosity in the students for Zoology & understand potential of various branches of Zoology.
21. To equip students with laboratory skills as well as field-based studies to become a successful entrepreneur.
22. To make aware about ways of conservation and sustainability.
23. To inculcate knowledge and make successful career in zoology.
24. To inculcate research attitude and aptitude among students.
25. To conduct basic and applied research which has societal and environmental value in Aquaculture discipline.
26. Acquire comprehensive knowledge and skills.
27. Make use of the knowledge in an innovative manner.
28. Effectively apply the knowledge and skills to address various issues.
29. Learn “how to learn”- Self-motivated and self-directed learning.
30. Adapt to the ever-emerging demands of work place and life.
31. Be inquisitive and establish cause and effect relationship.
32. Investigate and report.

33. Use ICT effectively.
34. Access, retrieve and use authenticated information.
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43. Work efficiently as an individual
44. Cooperate, coordinate and perform effectively in diverse teams/groups.
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46. Express thoughts in an effective manner
47. Listen, understand and project views in a convincing manner.
48. Decide appropriate media to share information

MATHEMATICS

Course Outcomes

MT101: Algebra and Geometry

1. To learn divisibility of integers and congruence relations.
2. To learn operations on polynomials, finding GCD of two polynomials and roots of polynomials.
3. To learn basic matrix algebra and method to find solutions to system of linear equations. Also, to learn eigenvalues and eigenvectors of matrix.
4. To learn analytical geometry of 2 and 3 dimensions which include study of conics, planes, lines, sphere, cone and cylinder.

MT102: Calculus and Differential Equations

1. To learn basic properties of real numbers and its subsets which is backbone of RealAnalysis.
2. To study functions in detail which is a fundamental structure in all sciences, and to be able to check continuity of a function.
3. To apply notion of derivative in mean value theorem and also in higher order derivatives which arise in all applied sciences
4. To be able to solve first order and first-degree differential equations.

Course: MT103: Mathematics Practical

1. Problem solving skills of students are enhanced.
2. Theoretical concepts are strengthened by solving maximum no. of problems
3. Due to one to one interaction with the teacher doubts of the students get cleared if any.
4. Students learn how to apply mathematical concepts to practical and real-life problems.
5. Interdisciplinary approach is developed.

Course: MT211 Multivariable Calculus I

1. To study functions and several variables.
2. To study the notion of Continuity and Differentiability of multivariate functions.
3. To find extreme values of multivariable functions using derivatives.
4. To learn evaluation of double and triple integration and its application to area and volume.

Course: MT212(B) Laplace Transform and Fourier series

1. To learn the evaluation of Laplace, transform of different types of functions, their derivatives and integrations.
2. To learn the evaluation of Inverse Laplace, transform of functions, their derivatives and integrations, and to learn application of Convolution theorem.
3. To learn to apply Laplace Transform to solve Ordinary Differential equations with constant coefficients.

4. To learn to evaluate the Fourier series of various even and odd functions.

Course: MT221 Linear Algebra

1. To learn the importance of linear transformation in Physics, Engineering, Social sciences and various branches of Mathematics.
2. To learn to find Eigen values and Eigen vectors of a matrix which is used in the study of vibrations, chemical reactions and geometry.
3. To learn Inner Product spaces and Gram-Schmidt process of orthogonalization.
4. To get well equipped with Mathematical Modelling abilities.

Course: MT222(B) Numerical Analysis

1. To learn to apply the various numerical techniques for solving real life problems.
2. The problems which cannot be solved by usual formulae and methods can be solved approximately by using numerical techniques.
3. To fit curve to the data by using 5 different methods of interpolation as well as extrapolation.
4. To find approximate solutions to difficult differential equations occurring in engineering sciences.

Course: MT223 Mathematics Practical

1. Problem solving skills of students are enhanced.
2. Theoretical concepts are strengthened by solving maximum no. of problems
3. Due to one to one interaction with the teacher doubts of the students get cleared if any.
4. Students learn how to apply mathematical concepts to practical and real-life problems. Interdisciplinary approach is developed.

Course: MT331 Metric Spaces

1. To equip students with basic mathematical tools such as open & close sets, continuity, connectedness, compactness which can be used to study general topology and real & complex analysis.

2. To enhance abstract thinking and visualization of students.
3. To generalize the notion of distance, convergent sequence and continuity of functions.
4. To increase problem solving ability by solving examples and counter-examples of various concepts involved.

Course: MT332 Real Analysis I

1. To learn basic techniques and examples in analysis to be well prepared for courses like Topology, Measure theory and Functional analysis.
2. To study various types of sets and relations, and concept of countable and uncountable.
3. To study concept of sequence and series and hence find sum of infinite terms with different methods.
4. To study notion of lub and glb which helps to learn integrations which helps to find area under any functions.

Course: MT334 Group Theory

1. To learn fundamental properties and mathematical tools such as closure, identity, inverse and generators.
2. To study algebraic structure 'Groups' in detail which is useful in study of Rings, Modules, Algebraic topology, Analysis.
3. To enhance abstract thinking of students.
4. To learn to compare two different algebraic structures and study transfer of properties in-between these structures through homomorphism and isomorphism.

Course: MT335 Ordinary Differential Equations

1. To learn methods to solve linear differential equation with constant coefficients.
2. To learn methods for solving non-homogenous differential equation.
3. To learn power series solution method using ordinary and singular points.
4. To solve system of first order differential equations.

Course: MT337F Number Theory

1. In this course, students learn the properties of the set of integers in detail.
2. Students can find integer solutions to the system of equations which arises in real life problems.
3. Students study various theorems on primes and also learn congruence which are used in cryptography.

Course: MT337A Operations Research

1. Students learn conversion of real-life problems into mathematical models which enhance their problem solving and decision-making abilities.
2. Students learn to calculate optimal solution of models through graphical and iterative methods.
3. Students study transportation and assignment models and methods to solve them.
4. This helps them to get optimum solutions within the given constraints to problems arising in industry.

Course: MT341 Complex Analysis

1. To learn basic algebraic properties of complex numbers and limit and continuity of Complex functions.
2. To learn analytic functions and the C-R equations as its necessary and sufficient conditions.
3. To learn tools which are useful in finding integration of Complex valued functions.
4. To learn sequences and series of Complex valued functions.
5. To learn applications of residues and poles in integrals of complex functions.

Course: MT342 Real Analysis II

1. To learn Riemann Integral and its properties in detail, leading to fundamental theorem

of ~~ch~~ and Mean value theorems.

2. To study different tests for solving improper integrals of first and second kind.
3. To study pointwise and uniform convergence of sequences and series of functions.

Course: MT344 Ring Theory

1. To study the algebraic structure Ring in detail through various examples.
2. To learn the construction of field of quotients of an integral domain.
3. To study the Rings of polynomials and its factorization over a field.
4. To study the notion of ideals and factor rings with examples.
5. To study Unique Factorization domain, Euclidean Domain and related results.

Course: MT345 Partial Differential Equations

1. To understand the concept of Ordinary differential Equations in more than two variables.
2. To learn the application of Ordinary differential Equations through method to find Orthogonal Trajectories.
3. Introduction of first order Partial Differential Equations.
4. Learn methods to solve first order Partial Differential Equations.

Course: MT347D Graph theory

1. To introduce the concept of Graphs, which is an important tool for Mathematical Modelling.
2. To study different types of graphs and operations on graphs.
3. To study the concept of trees in detail and algorithms to find special spanning trees.
4. To study Directed Graphs and its applications.

Course: MT347F Computational Geometry

1. Students learn the representation of objects in 2D and 3D in the form of matrices
2. To study the transformations like reflection, rotation, scaling, shearing, translation of objects in 2D and 3D and their geometrical significance.
3. Students learn to generate plane curves by using parametric equation
4. All the concepts help students to learn graphic display of objects on computer.

PHYSICS

Course Outcomes

DSC1: Mechanics:

1. The students would learn about the behaviour of physical bodies it provides the basic concepts related to the motion of all the objects around us in our daily life.
2. The course builds a foundation of various applied field in science and technology; especially in the field of mechanical engineering.
3. The course comprises of the study vectors, laws of motion, momentum, energy, rotational motion, gravitation, fluids, elasticity and special relativity.

DSC1 LAB:

1. Students would perform basic experiments related to mechanics and also get familiar with various measuring instruments would learn the importance of accuracy of measurements.

DSC2: Electricity and Magnetism:

2. It gives an opportunity for the students to learn about one of the fundamental interactions of electricity and magnetism, both as separate phenomena and as a singular electromagnetic force.
3. The course contains vector analysis, electrostatics, magnetism, electromagnetic induction and Maxwell's equations.
4. The course is very useful for the students in almost every branch of science and engineering.

DSC2 LAB:

1. Students would gain practical knowledge about electricity and magnetism and measurements such as: Resistance, Voltage, current etc.

DSC3: Thermal Physics and Statistical Mechanics:

1. course makes the students able to understand the basic physics of heat and temperature and their relation with energy, work, radiation and matter.
2. The students also learn how laws of thermodynamics are used in a heat engine to transform heat into work.
3. The course contains the study of laws of thermodynamics, thermodynamic description of systems, thermodynamic potentials, kinetic theory of gases, theory of radiation and statistical mechanics.

DSC3 LAB:

1. Students would gain practical knowledge about heat and radiation, thermodynamics, thermo emf, RTD etc. and perform various experiments.

DSC4: Wave and Optics:

2. The course comprises of the study of superposition of harmonic oscillations, waves motion (general), oscillators, sound, wave optics, interference, diffraction, polarization.
3. The course is important for the students to make their career in various branches of science and engineering, especially in the field of photonic engineering.

DSC4 LAB:

1. The practical knowledge of wave motion doing experiments: Tuning fork, electric vibrations.
2. understand the basic laws and explore the fundamental concepts of physics.
3. To understand the concepts and significance of the various physical phenomena.
4. To carry out experiments to understand the laws and concepts of Physics.
5. To apply the theories learnt and the skills acquired to solve real time problems.
6. To acquire a wide range of problem-solving skills, both analytical and technical and to apply them.

DSE1: Elements of Modern Physics:

1. To enhance the student's academic abilities, personal qualities and transferable skills this will give them an opportunity to develop as responsible citizens.
2. To produce graduates who excel in the competencies and values required for leadership to serve a rapidly evolving global community.
3. To motivate the students to pursue PG courses in reputed institutions.
4. This course introduces students to the methods of experimental physics. Emphasis

will be given on laboratory techniques specially the importance of accuracy of measurements.

5. Providing a hands-on learning experience such as in measuring the basic concepts in properties of matter, heat, optics, electricity and electronics.
6. They would also learn optical phenomena such as interference, diffraction and dispersion and do experiments related to optical devices: Prism, grating, spectrometers.

DSE1 LAB-Elements of Modern Physics

1. Students would know about the basic principles in the development of modern physics.
2. In this course students would be able to understand Basic experiments of modern physics such as: Determination of Planck's and Boltzmann's constants, Determination of ionization potential, Wavelength of H-spectrum, Single and double slit diffraction, Photo electric effect and determination of e/m .

DSE1: Solid State Physics:

1. Students would be able to understand various types of crystal structures and symmetries and understand the relationship between the real and reciprocal space and learn the Bragg's X-ray diffraction in crystals. Would also learn about phonons and lattice.

DSE1 LAB- Solid State Physics:

2. The course Provides practical knowledge of various physical phenomena such as: magnetism, dielectrics, ferroelectrics and semiconductors.
3. Students would gain a hands-on learning experience by performing experiments on these properties of materials.

DSE2: Quantum Mechanics:

1. Quantum mechanics provides a platform for the physicists to describe the behaviour of matter and energy at atomic and subatomic level.
2. The course plays a fundamental role in explaining how things happen beyond our normal observations.
3. The course includes the study of Schrodinger equations, particle in one-dimension potential, quantum theory of H like atoms, atoms/molecules in electric and magnetic fields.

DSE2 LAB- Quantum Mechanics

1. Various practical problems solving methods related to Quantum Mechanics would be learned by students.

DSE2: Mathematical Physics:

2. Would learn mathematical methods to solve the various problems in physics. The topics include the calculus of functions, Fourier transform, special functions and special integrals, partial differential equations, complex analysis and variables.

DSE2 LAB- Mathematical Physics:

1. Various practical problems related to applications of mathematical tools to solve the problems in physics would be learned by students.

SEC1 - Electronics –I:

2. The students would gain the knowledge of Basic Electronics circuits, network theorems and measuring instruments: They would know about common solid-state devices: Semiconductor diodes and transistors. The topics also include the Rectifiers, Filters and their applications, number systems and logic gates which are foundation blocks of digital electronics.

SEC2- Computational Physics:

1. This course would introduce students with the basic knowledge of computers their applications in solving common and scientific problems, the course includes scientific programming languages, scientific word processing and graphical analysis.

SEC3-Electronics II:

2. Students would learn about electronic circuits such as Amplifiers and Oscillators. Various types of Amplifier and Oscillator circuits their working and applications in in domestic, industrial and scientific devices/equipments.

SEC4: Radiation and Safety:

3. The students would gain the knowledge of different types of radiation and its interactions with matter, would also know about the photons, charged particles, neutrons, about radiation detection, monitoring and safety measures, and also learn about the applications of nuclear techniques.

CHEMISTRY

Course Outcomes

Course-I: Inorganic & Physical Chemistry

1. Understand the basic concepts of p-block elements.
2. Explain the difference between solid, liquid and gases in terms intermolecular interactions.
3. Apply the concepts of gas equations, pH and electrolytes while studying other chemistry courses.

Course-II: Organic & General Chemistry

4. Understand and Explain the differential behaviour of organic compounds based on fundamental concepts learnt.
5. Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.
6. Learn and identify many organic reaction mechanisms including Free radical substitution, Electrophilic Addition and Electrophilic aromatic substitution.
7. Correlate and describe stereochemical properties of organic compounds and reactions.

Course-III: Organic Chemistry & Spectroscopy

1. Understand preparation, properties and reactions of haloalkanes, haloarenes and oxygen containing functional groups.
3. Use the synthetic chemistry learnt in this to do functional group transformations.
4. To propose possible mechanisms for any relevant mechanisms.

Course-IV: Inorganic, Organic and Physical Chemistry

1. To learn about the laws of absorption of light energy by molecules and the subsequent photochemical reactions.
2. To understand the concept of quantum efficiency and mechanisms of photochemical reactions.

Course-V: Inorganic and Physical Chemistry

8. Understand of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation values.
9. Application of quantization to spectroscopy.
10. Various types of spectra and the IR use in structure determination.

6D: Environmental Chemistry

11. Understand the environment functions and how it is affected by human activities.
12. Acquire chemical knowledge to ensure sustainable use of the world's resources and ecosystem services.
13. Engage in simple and advanced analytical tools used to measure the different types of pollution.
14. Explain the energy crisis and different aspects of sustainability.
15. Analyze key ethical challenges concerning biodiversity and understand the moral principles, goals and virtues important for guiding decisions that affect earth's plant and animal life.

7D: Green Chemistry and Nanotechnology

16. Understand the importance of Green chemistry and Green synthesis.
17. Engage in Microwave assisted organic synthesis.
18. Demonstrate skills using the alternative green solvents in synthesis.
19. Analyze alternative sources of energy and carry out green synthesis.
20. Carry out the chemical method of Nanomaterial synthesis.

ZOOLOGY

Course Outcomes

First Year

1. Exposure to diversity in animal groups (invertebrates) (Protozoa to Hemichordata) and Chordata (Vertebrata).

2. To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.

Second Year

1. Students pursuing this course should have detailed studies of the various disciplines of the zoology subject and the other branches of zoology such as Cytology, Genetics, Evolution and Embryology, Physiology and Ecology etc.
2. The practical course intends to inform students about Cytology, Genetics and Embryology, Physiology and Ecology etc.

Third Year

3. Students pursuing this course should have detailed studies of the various disciplines of the zoology subject and the other branches of zoology such as Animal Biotechnology, Animal Husbandry and Immunology and Aquaculture Subjects like Principles of Aquaculture, Aquaculture Management, Post-harvest Technology etc.
4. The working principles, design guidelines and experimental skills associated with different fields of zoology such as Animal Biotechnology, Animal Husbandry and Immunology and Aquaculture Subjects like Principles of Aquaculture, Aquaculture Management, Post-harvest Technology etc.

BOTANY

Domain Subject [Botany] Objectives

1. To impart knowledge on origin, evolution, structure, reproduction and interrelationships of microbes and early plant groups.
2. To provide knowledge on Biology and Taxonomy of true land plants within a phylogenetic framework.
3. To teach aspects related to anatomy, embryology and ecology of plants, and importance of Biodiversity.
4. To explain the structural and functional aspects of plants with respect to the cell organelles, chromosomes and genes, and methods of plant breeding.

5. To develop a critical understanding on SPAC, metabolism and growth and development in plants.
6. To enable the students proficient in experimental techniques and methods of analysis appropriate for various sub-courses in Botany.

Domain Subject [Botany] Outcomes:

1. Students will be able to Identify, compare and distinguish various groups of Microbes and primitive plants based on their characteristics.
2. Students will be able to explain the evolution of Tracheophytes and also distribution of plants on globe.
3. Students will be able to discuss on Internal Structure, Embryology and Ecological adaptations of plants, and want of conserving Biodiversity.
4. Students will be able to Interpret life processes in plants in relation to Physiology and Metabolism.
5. Students will be able to describe ultra-structure of plant cells, Inheritance and Crop Improvement Methods.
6. Students will independently design and conduct simple experiments based on the Knowledge acquired in theory and practicals of the different sub-courses in Botany.