

SEMESTER – I :: COURSE - I
MICROECONOMIC ANALYSIS
NO. OF CREDITS: 4

LEARNING OUTCOMES FOR THE COURSE

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (Knowledge)
 - a. the differences between microeconomic analysis and macroeconomic analysis
 - b. various laws and principles of microeconomic theory under consumption,
2. Explains (understanding)
 - a. various terms and concepts relating to microeconomic analysis with the help of examples of real life
 - b. consumer's equilibrium and consumer's surplus using indifference curve analysis.
 - c. various laws and principles of consumption, production, and income distribution
 - d. determination of price and output discriminating different market conditions in short term and long term
3. Critically examines using data and figures (analysis and evaluation)
 - a. various laws and principles of microeconomic analysis and market conditions
 - b. application of the concept of demand elasticity and its relation with Average and Marginal Revenue
 - c. the relationship between average and marginal cost/revenue both in long term and
4. Draws critical diagrams and graphs to explain and examine the application of various laws and principles of microeconomic analysis

SEMESTER – 2:: COURSE –2
MACROECONOMIC ANALYSIS
NO. OF CREDITS: 4

LEARNING OUTCOMES FOR THE COURSE

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (knowledge) Various concepts, definitions, laws and principles of macroeconomic theory with reference to income, employment, money, banking and finance
2. Explains (understanding)
 - a. the difference between various concepts and components of national income with illustrations and methods of measuring national income
 - b. various terms, concepts, laws and principles, theories relating to income, employment, consumption, investment, money, price-level and phases of trade cycles
 - c. functions of commercial banks and central bank, creation and control of credit
3. Critically examines using data and figures (analysis and evaluation)
 - a. in order to understand the interrelationship between various components of national income
 - b. the theories of macroeconomics with reference to their assumptions, implications and applicability
 - c. Empirical evidences of Consumption and Investment Functions and factors influencing them
4. Draws critical formulae, diagrams and graphs.
 - a. consumption and investment functions; concepts of multiplier and accelerator
 - b. price indices, inflation and trade cycles

SEMESTER – 3:: COURSE – 3
DEVELOPMENT ECONOMICS
NO. OF CREDITS: 4

LEARNING OUTCOMES FOR THE COURSE

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (Knowledge) Various concepts and definitions and indicators relating to economic growth and Development including recent developments
2. Explains (understanding)
 - a. Distinction between growth and development with examples
 - b. Characteristics of developing and developing economies and distinction between the two
 - c. factors contributing to development, Choice of Techniques and a few important models and strategies of growth
3. Critically examines using data and figures (analysis and evaluation)
 - a. the theoretical aspects of a few models and strategies of economic growth
 - b. role and importance of various financial and other institutions in the context of India's economic development
4. Draws critical diagrams and graphs.
 - a. to explain the models and strategies
 - b. to highlight empirical evidences to support the strategies

SEMESTER – 4 :: COURSE – 4

ECONOMIC DEVELOPMENT- INDIA AND ANDHRA PRADESH

NO. OF CREDITS: 4

LEARNING OUTCOMES FOR THE COURSE

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (Knowledge)
 - a. leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses
 - b. Objectives, outlays and achievements of economic plans and growth strategies
2. Explains (understanding)
 - a. Available Resources, demographic issues, general problems of poverty and unemployment and relevant policies
 - b. Sector specific problems, remedial policies and their effectiveness relating to Agriculture and Industrial Sectors of Indian and AP economy and infrastructure issues of AP economy
 - c. Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds
 - d. Major issues of economic development of Andhra Pradesh after bifurcation and Central assistance
3. Critically examines using data and figures (analysis and evaluation)
 - a. Leading issues of current importance relating to India and AP economy, major policies and programmes
 - b. Covid– 19 and its impact on Indian economy
4. Uses official statistical data and reports including tables and graphs
 - a. To explain the achievements of Indian economy with reference to the objectives of planning and policy and make critical evaluation

COURSE– 5(Semester - IV)

STATISTICAL METHODS FOR ECONOMICS NO. OF CREDITS: 4

LEARNING OUTCOMES FOR THE COURSE

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (Knowledge)
 - a. the definitions, terms and their meaning relating to statistical methods
 - b. various formulae used to measure central tendency, correlation regression and Indices
2. Explains (understanding)
 - a. Importance of statistics and its applications
 - b. The method of classification of primary data
 - c. Uses of Correlation and Regression analysis, time series and index numbers in economic analysis
3. Analyses and solves using given data and information (analysis and evaluation)
 - a. different kinds of statistical problems using various principles and formulae relating to central tendency, correlation, regression, time series and indices
 - b. to interpret data and suggest solutions to economic problems
4. Draws critical diagrams and graphs.
 - a. Histogram, Frequency Polygon and Frequency Curve
 - b. More than cumulative and less than cumulative frequency curves (Ogive)
 - c. Different types of Bar diagrams d. Pie Diagram and its uses in economic analysis

COURSE-I
CBCS/ SEMESTER SYSTEM
B.A./B.Sc. MATHEMATICS (w.e.f. 2020-21 Admitted Batch)
DIFFERENTIAL EQUATIONS
SYLLABUS (75 Hours)

Course Outcomes:

1. After successful completion of this course, the student will be able to; Solve linear differential equations
2. Convert non-exact homogeneous equations to exact differential equations by using integrating factors.
3. Know the methods of finding solutions of differential equations of the first order but not of the first degree.
4. Solve higher-order linear differential equations, both homogeneous and non -homogeneous, with constant coefficients.
5. Understand the concept and apply appropriate methods for solving differential equations

COURSE-II
CBCS/ SEMESTER SYSTEM (w.e.f. 2020-21 Admitted Batch)
B.A./B.Sc. MATHEMATICS
THREE DIMENSIONAL ANALYTICAL SOLID GEOMETRY
Syllabus (75 Hours)

Course Outcomes:

After successful completion of this course, the student will be able to;

1. get the knowledge of planes.
2. basic idea of lines, sphere and cones.
3. understand the properties of planes, lines, spheres and cones.
4. express the problems geometrically and then to get the solution

COURSE-III

CBCS/ SEMESTER SYSTEM (w.e.f. 2020-21 Admitted Batch)

B.A./B.Sc. MATHEMATICS

ABSTRACT ALGEBRA

SYLLABUS (75 Hours)

Course Outcomes: After successful completion of this course, the student will be able to;

1. acquire the basic knowledge and structure of groups, subgroups and cyclic groups.
2. get the significance of the notation of a normal subgroups.
3. get the behaviour of permutations and operations on them.
4. study the homomorphisms and isomorphisms with applications.
5. understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems.
6. understand the applications of ring theory in various fields

COURSE-IV

CBCS/ SEMESTER SYSTEM (w.e.f. 2020-21 Admitted Batch)

B.A./B.Sc. MATHEMATICS REAL ANALYSIS

SYLLABUS (75 Hours)

Course Outcomes:

After successful completion of this course, the student will be able to

1. get clear idea about the real numbers and real valued functions.
2. obtain the skills of analysing the concepts and applying appropriate methods for testing convergence of a sequence/ series.
3. test the continuity and differentiability and Riemann integration of a function
4. know the geometrical interpretation of mean value theorems

COURSE-V

CBCS/ SEMESTER SYSTEM (w.e.f. 2020-21 Admitted Batch)

B.A./B.Sc. MATHEMATICS LINEAR ALGEBRA

SYLLABUS (75 Hours)

Course Outcomes:

After successful completion of this course, the student will be able to;

1. understand the concepts of vector spaces, subspaces, bases, dimension and their properties
2. understand the concepts of linear transformations and their properties
3. apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods
4. learn the properties of inner product spaces and determine orthogonality in inner product spaces

Four-year B.A. /B.Sc. (Hons) Domain Subject: MATHEMATICS IV

Year B.A./B.Sc.(Hons)– Semester – V

Max Marks: 100 Course-6B:

Multiple integrals and applications of Vector calculus

(Skill Enhancement Course (Elective), 5 credits)

I. Learning Outcomes:

Students after successful completion of the course will be able to

1. Learn multiple integrals as a natural extension of definite integral to a function of two variables in the case of double integral / three variables in the case of triple integral.
2. Learn applications in terms of finding surface area by double integral and volume by triple integral.
3. Determine the gradient, divergence and curl of a vector and vector identities.
4. Evaluate line, surface and volume integrals.
5. understand relation between surface and volume integrals (Gauss divergence theorem), relation between line integral and volume integral (Green's theorem), relation between line and surface integral (Stokes theorem)

Four-year B.A. /B.Sc. (Hons) Domain Subject: MATHEMATICS

IV Year B.A./B.Sc.(Hons)– Semester – V

Max Marks: 100 Course-7B:

Integral transforms with applications

(Skill Enhancement Course (Elective), 5 credits)

Learning Outcomes:

Students after successful completion of the course will be able to

1. Evaluate Laplace transforms of certain functions, find Laplace transforms of derivatives and of integrals.
2. Determine properties of Laplace transform which may be solved by application of special functions namely Dirac delta function, error function, Bessel function and periodic function.
3. Understand properties of inverse Laplace transforms, find inverse Laplace transforms of derivatives and of integrals.
4. Solve ordinary differential equations with constant/ variable coefficients by using Laplace transform method.
5. Comprehend the properties of Fourier transforms and solve problems related to finite Fourier transforms.

Domain Subject: History

Semester-wise Syllabus under CBCS

I Year B. A. –Semester – I Course1:

ANCIENT INDIAN HISTORY & CULTURE (from Indus Valley Civilization to 13th Cen A.D)

Learning Outcomes:

After successful completion of this course, the student will be able to:

- Identify and define various kinds of sources and understand how history books are shaped
- Compare and contrast various stages of progress from IVC to Vedic age and analyze the Jain, Buddhist and Vedic faiths
- Increase the awareness and appreciation of Transition from Territorial States to Emergence of Empires
- Analyze the emergence of the Mauryan and Gupta empires during the —classical age in India → Evaluate the key facets of ancient society, polity and culture in South India—the feudalism, and the rise of technology and commerce.
- Critically examine the nature of monarchic rule and develop an comprehensive understanding of cultural evolution during ancient period
- Visualize where places are in relation to one another through map pointing

I Year B. A.

Semester – II Course 2:

MEDIEVAL INDIAN HISTORY & CULTURE (1206 A.D to 1764 A.D)

Learning Outcomes:

After successful completion of this course, the student will be able to:

- Understand the socio, economic and cultural conditions of medieval India
- Describe the advent of Islam in India and study the traces of political and cultural expansion of Turks & Afghans
- Explain the Administration and art and architecture of Vijayanagar Rulers, Mughals and also analyse the rise of the Marathas and the contribution of Shivaji
- Evaluate the establishment of the British rule in India and understand the dangerous consequences disunity at all levels
- Analyse the emergence of composite culture in Indian

- Visualize where places are in relation to one another through map pointing

I Year B. A.

Semester – III Course 3:

MODERN INDIAN HISTORY & CULTURE (1764-1947 A. D)

Learning Outcomes:

After successful completion of this course, the student will be able to:

- Unearth the true nature of the British rule and its disastrous impact on Indian economy and society
- Gauge the disillusionment of people against the Company's rule even during the early 19th century
- Assess the causes and effects of Reformation movements and also inspire the public to overthrow inequalities of the present day society
- Rise above petty parochial issues after understanding the sacrificial saga of freedom Struggle
- Evaluate the undercurrent of communal politics that led to India's partition and identify the enemies of India's integrity and sovereignty
- Visualize where places are in relation to one another through map pointing

II Year B. A.

Semester – IV Course 4:

HISTORY & CULTURE OF ANDHRA (FROM 1512 TO 1956 AD)

Learning Outcomes:

After successful completion of this course, the student will be able to:

- Interpret social and political and cultural transformation from medieval to modern Andhra
- Relate key historical developments during medieval period occurring in coastal Andhra and Telangana regions and analyse socio - political and economic changes under Qubaisi rulers
- Understand gradual change, or change in certain aspects of society in Andhra, rather than rapid or fundamental changes
- Explain how the English East India Company became the most dominant power and outline the impact of colonial policies on different aspects in Andhra
- Outline the issues related to caste, women, widow remarriage, child marriage, social reforms and the laws and policies of colonial administration towards these issues
- Take pride in the non-violence struggle for Indian Independence and relate the importance of peace in everyday life

- Apply the knowledge of the regional history to understand the regional, linguistic and other cultural aspirations of the present day society
- Visualize where places are in relation to one another through map pointing

I/II Year B. A.

Semester 4 Course 5:

HISTORY OF MODERN WORLD (From 15th Cent. AD to 1945 AD)

Learning Outcomes:

After successful completion of this course, the student will be able to:

- Demonstrate advanced factual knowledge of world histories, politics, and cultures
- Assess and appraise the developments in art, literature, and society during the Renaissance and utilize content knowledge of the Reformation and Counter Reformation to make predictions about the evolution of Christianity in Europe and Abroad
- Evaluate the causes for the Glorious Revolution and American Revolution and identify the background for the evolution of human rights movement
- Understand the main events of the French Revolution and its significance in the shift in European culture from Enlightenment to Romanticism
- Think how Russia's traditional monarchy was replaced with the world's first Communist state.
- Know how the world wars affected people all over the world and the destruction they caused
- Develop the intellectual curiosity and habits of thought that will lead to life-long learning and continued engagement with European history, literature, culture, languages, and current affairs and acquire advanced international and intercultural competency through coursework in international studies
- Visualize where places are in relation to one another through map pointing

SYLLABUS

B.A.

POLITICAL SCIENCE

FIRST YEAR FIRST SEMESTER (Under CBCS w.e.f. 2020-21) Course-1:

INTRODUCTION TO POLITICAL SCIENCE

Learning Outcomes:

On successful completion of the course the students will be able to;

- Recall the previous knowledge about Political Science and understand the nature and scope, traditional and modern approaches of Political Science.
- Understand concepts intrinsic to the study of Political Science.
- Have solid theoretical understanding of Rights and its theories along with the basic aspects of certain political ideologies.
- Apply the knowledge to observe the field level phenomena

B.A. POLITICAL SCIENCE

FIRST YEAR SECOND SEMESTER (Under CBCS w.e.f 2020-21) Course-2:

BASIC ORGANS OF THE GOVERNMENT

Learning Outcomes:

On successful completion of the course the students will be able to:

- Understand the Origin and Evolution of the concept of Constitutionalism and classification of Constitutions.
- Acquaint themselves with different theories of origin of State.
- Understand and analyses organs and forms of Governments along with a deep insight into the various agents involved in the political process.
- Apply the knowledge to analyse and evaluate the existing systems

B.A. POLITICAL SCIENCE

SECOND YEAR THIRD SEMESTER (Under CBCS w.e.f 2020-21) Course-3:

INDIAN GOVERNMENT AND POLITICS

Learning Outcomes:

On successful completion of the course the students will be able to:

- Acquire knowledge about the historical background of Constitutional development in India, appreciate philosophical foundations and salient features of the Indian Constitution.
- Analyse the relationship between State and individual in terms of Fundamental Rights and Directive Principles of State Policy.
- Understand the composition of and functioning of Union Government as well as State Government and finally
- Acquaint themselves with the judicial system of the country and its emerging trends such as judicial reforms

B.A. POLITICAL SCIENCE

SECOND YEAR FOURTH SEMESTER (Under CBCS w.e.f 2020-21) Course-4 :

INDIAN POLITICAL PROCESS

Learning Outcomes:

On successful completion of the course the students will be able to :

- Know and understand the federal system of the country and some of the vital contemporary emerging issues.
- Evaluate the electoral system of the country and to identify the areas of electoral reforms.
- Know the constitutional base and functioning of local governments with special emphasis on 73rd & 74th Constitutional Amendment Acts.

- Understand the dynamics of Indian politics, challenges faced and gain a sensitive comprehension to the contributing factors.
- Apply the knowledge and critically comprehend the functioning of some of the regulatory and governance institutions.
- Propose theoretical outline alternate models

B.A. POLITICAL SCIENCE

SECOND YEAR FOURTH SEMESTER (Under CBCS w.e.f 2020-21) Course 5:

WESTERN POLITICAL THOUGHT

Learning Outcomes:

On successful completion of the course the students will be able to:

- Understand the fundamental contours classical, western political philosophy, basic features of medieval political thought and shift from medieval to modern era.
- Understand the Social Contract Theory and appreciate its implications on the perception of State in terms of its purposes and role.
- Acquaint with the Liberal and Marxist philosophy and analyze some trends in Western Political Thought.
- Critically analyse the evolution of western political thought

I Semester

Botany Core Course - 1

Fundamentals of Microbes and Non-vascular Plants

(Viruses, Bacteria, Fungi, Lichens, Algae and Bryophytes)

(Total hours of teaching – 60 @ 04 Hrs./Week) Theory:

Learning Outcomes:

On successful completion of this course, the students will be able to:

- Explain origin of life on the earth.
- Illustrate diversity among the viruses and prokaryotic organisms and can categorize them.
- Classify fungi, lichens, algae and bryophytes based on their structure, reproduction and life cycles.
- Analyze and ascertain the plant disease symptoms due to viruses, bacteria and fungi.

- Recall and explain the evolutionary trends among amphibians of plant kingdom for their shift to land habitat.
- Evaluate the ecological and economic value of microbes, thallophytes and bryophytes

Practical syllabus of Botany

Core Course – 1/ Semester – I

Fundamentals of Microbes and Non-vascular Plants

(Viruses, Bacteria, Fungi, Lichens, Algae and Bryophytes)

(Total hours of laboratory exercises 30 Hrs. @ 02 Hrs./Week)

Course Outcomes:

On successful completion of this practical course, student shall be able to;

1. Demonstrate the techniques of use of lab equipment, preparing slides and identify the material and draw diagrams exactly as it appears.
2. Observe and identify microbes and lower groups of plants on their own.
3. Demonstrate the techniques of inoculation, preparation of media etc.
4. Identify the material in the permanent slides etc.

II Semester /Botany Core Course – 2

Basics of Vascular plants and Phytogeography

(Pteridophytes, Gymnosperms, Taxonomy of Angiosperms and Phytogeography)

(Total hours of teaching – 60 @ 02 Hrs./Week)

Theory: Learning Outcomes:

On successful completion of this course, the students will be able to:

- Classify and compare Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycles.
- Justify evolutionary trends in tracheophytes to adapt for land habitat.

- Explain the process of fossilization and compare the characteristics of extinct and extant plants.
- Critically understand various taxonomical aids for identification of Angiosperms.
- Analyze the morphology of the most common Angiosperm plants of their localities and recognize their families.
- Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their goods and services for human welfare.
- Locate different phytogeographical regions of the world and India and can analyze their floristic wealth.

Practical syllabus of Botany Core Course – 2/ Semester – II

Basics of Vascular plants and Phytogeography

(Pteridophytes, Gymnosperms, Taxonomy of Angiosperms and Phytogeography)

(Total hours of laboratory exercises 30 Hrs. @ 02 Hrs. /Week)

Course Outcomes:

On successful completion of this course students shall be able to:

1. Demonstrate the techniques of section cutting, preparing slides, identifying of the material and drawing exact figures.
2. Compare and contrast the morphological, anatomical and reproductive features of vascular plants.
3. Identify the local angiosperms of the families prescribed to their genus and species level and prepare herbarium.
4. Exhibit skills of preparing slides, identifying the given twigs in the lab and drawing figures of plant twigs, flowers and floral diagrams as they are.
5. Prepare and preserve specimens of local wild plants using herbarium techniques.

III Semester /Botany Core Course - 3

Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity

(Total hours of teaching – 60 @ 04 Hrs./Week)

Theory: Learning outcomes:

- On successful completion of this course, the students will be able to; Understand on the organization of tissues and tissue systems in plants.
- Illustrate and interpret various aspects of embryology.
- Discuss the basic concepts of plant ecology, and evaluate the effects of environmental and biotic factors on plant communities.
- Appraise various qualitative and quantitative parameters to study the population and community ecology.
- Correlate the importance of biodiversity and consequences due to its loss.
- Enlist the endemic/endangered flora and fauna from two biodiversity hot spots in India and assess strategies for their conservation.

Practical syllabus of Botany

Core Course – 3 /Semester – III

Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity

(Total hours of laboratory exercises 30 Hrs. @ 02 Hrs./Week)

Course Outcomes:

On successful completion of this practical course students shall be able to:

1. Get familiarized with techniques of section making, staining and microscopic study of vegetative, anatomical and reproductive structure of plants.
2. Observe externally and under microscope, identify and draw exact diagrams of the material in the lab.
3. Demonstrate application of methods in plant ecology and conservation of biodiversity and qualitative and quantitative aspects related to populations and communities of plants.

IV Semester/ Botany Core Course – 4

Plant Physiology and Metabolism

(Total hours of teaching – 60 @ 04 Hrs./Week)

On successful completion of this course, the students will be able to;

- Comprehend the importance of water in plant life and mechanisms for transport of water and solutes in plants.
- Evaluate the role of minerals in plant nutrition and their deficiency symptoms.

- Interpret the role of enzymes in plant metabolism.
- Critically understand the light reactions and carbon assimilation processes responsible for synthesis of food in plants.
- Analyze the biochemical reactions in relation to Nitrogen and lipid metabolisms.
- Evaluate the physiological factors that regulate growth and development in plants.
- Examine the role of light on flowering and explain physiology of plants under stress conditions.

Practical Syllabus of Botany Core Course – 4 / Semester – IV

Plant Physiology and Metabolism

(Total hours of laboratory exercises 30 Hrs. @ 02 Hrs. /Week)

Course outcomes:

On successful completion of this practical course, students shall be able to:

1. Conduct lab and field experiments pertaining to Plant Physiology, that is, biophysical and biochemical processes using related glassware, equipment, chemicals and plant material.
2. Estimate the quantities and qualitative expressions using experimental results and calculations
3. Demonstrate the factors responsible for growth and development in plants.

IV Semester / Botany Core Course –5

Cell Biology, Genetics and Plant Breeding

(Total hours of teaching – 60 @ 04 Hrs./Week)

On successful completion of this course, the students will be able to:

- Distinguish prokaryotic and eukaryotic cells and design the model of a cell.
- Explain the organization of a eukaryotic chromosome and the structure of genetic material.
- Demonstrate techniques to observe the cell and its components under a microscope.
- Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings.
- Elucidate the role of extra-chromosomal genetic material for inheritance of characters.
- Evaluate the structure, function and regulation of genetic material.
- Understand the application of principles and modern techniques in plant breeding.
- Explain the procedures of selection and hybridization for improvement of crops.

Practical Syllabus of Botany Core Course – 5/IVSemester

Cell Biology, Genetics and Plant Breeding

(Total hours of laboratory exercises 30 Hrs. @ 02 Hrs. /Week)

Course Outcomes:

After successful completion of this practical course the student shall be able to:

1. Show the understanding of techniques of demonstrating Mitosis and Meiosis in the laboratory and identify different stages of cell division.

2. Identify and explain with diagram the cellular parts of a cell from a model or picture and prepare models
3. Solve the problems related to crosses and gene interactions.
4. Demonstrate plant breeding techniques such as emasculation and bagging.

Objectives and General Outcomes of Programme and Domain Subject Programme (B.Sc.)

Objectives:

The objectives of bachelor's degree programme with Botany are:

1. To provide a comprehensive knowledge on various aspects related to microbes and plants.
2. To deliver knowledge on latest developments in the field of Plant sciences with a practical approach.
3. To produce a student who thinks independently, critically and discuss various aspects of plant life.
4. To enable the graduate to prepare and pass through national and international examinations related to Botany.
5. To empower the student to become an employee or an entrepreneur in the field of Botany /Biology and to serve the nation. .

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 the 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.

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 method 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 ultrastructure 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.