

PROGRAMME OUTCOMES (Bachelor of Arts)

The B.A. programme in the college is recognized by Satavahana University and follows the syllabus prescribed by the university. Our students are allowed to choose from any of the three subjects from the cluster of History, Economics, Political Science, Public Administration and Computer Applications. B.A. programme in our college meets the standards prescribed by general humanities education. Some learning outcomes include:

Cognitive skills: Students choosing combination of three subjects develop social, political, historic, economic and literary consciousness and will be better able to appreciate different civilizations, culture. In the three-year duration, they will cultivate the sensibility to discern the evolution of civilizations and cultures. They will also be up to date with contemporary developments and develop a sociological sensibility to critically understand the social phenomena that affects their lives. Students also learn two languages along with three major subjects. At the end of the programme, they usually will have advanced reading, writing, speaking, interpretive and composition skills in both languages.

Employability: On graduating, the students will be eligible for employment in tourism, media, hospitality, and other industries. Students also become employable in non-governmental organizations. Their skills in comprehension of general social phenomena around them places them in ideal situation for such jobs. They will also be able to appear for competitive examinations conducted for public sector jobs. The general humanities education equips them to clear competitive exams.

Values: Humanities education is designed in such a way that it lays particular emphasis on human values. Students on completion of the undergraduate degree will be better able to appreciate the literary and cultural diversity. It equips them to think critically about the issues of contemporary relevance and hold an informed opinion on them.

PROGRAMME OUTCOMES (Bachelor of Commerce)

The salient features of the Programme Outcomes in B. Com. are:

Disciplinary Knowledge: Demonstrate a blend of conventional discipline knowledge and its applications to the modern world. Execute strong theoretical and practical understanding generated from the chosen programme.

Critical Thinking and Problem solving: Exhibit the skill of critical thinking and use higher order cognitive skills to approach problems situated in their social environment, propose feasible solutions and help in its implementation.

Research-Related Skills: Seeks opportunity for research and higher academic achievements in the chosen field and allied subjects and is aware about research ethics, intellectual property rights and issues of plagiarism. Demonstrate a sense of inquiry and capability for asking relevant/appropriate questions; ability to plan, execute and report the results of a research project be it in field or otherwise under supervision.

Personal and professional competence: Equip with strong work attitudes and professional skills that will enable them to work independently as well as collaboratively in a team environment.

Effective Citizenship and Ethics: Demonstrate empathetic social concern and equity centred national development; ability to act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.

Environment and Sustainability: Understand the impact of the scientific solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.

Self-directed and Life-long learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.

PROGRAMME OUTCOMES (Bachelor of Science)

Disciplinary Knowledge: Demonstrate comprehensive knowledge of the disciplines that form a part of a graduate programme. Execute strong theoretical and practical understanding generated from the specific graduate programme in the area of work.

Critical Thinking and Problem solving: Exhibit the skills of analysis, inference, interpretation and problem-solving by observing the situation closely and design the solutions.

Social competence: Display the understanding, behavioural skills needed for successful social adaptation, work in groups, exhibit thoughts and ideas effectively in writing and orally.

Research-related skills and Scientific temper: Develop the working knowledge and applications of instrumentation and laboratory techniques. Able to apply skills to design and conduct independent experiments, interpret, establish hypothesis and inquisitiveness towards research.

Trans-disciplinary knowledge: Integrate different disciplines to uplift the domains of cognitive abilities and transcend beyond discipline-specific approaches to address a common problem.

Personal and professional competence: Performing dependently and also collaboratively as a part of a team to meet defined objectives and carry out work across interdisciplinary fields. Execute interpersonal relationships, self-motivation and adaptability skills and commit to professional ethics.

Effective Citizenship and Ethics: Demonstrate empathetic social concern and equity centered national development, and ability to act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.

Environment and Sustainability: Understand the impact of the scientific solutions in societal and environmental contexts and demonstrate the knowledge of and need for sustainable development.

Self-directed and Life-long learning: Acquire the ability to engage in independent and life-long learning in the broad context of socio-technological changes.

Department of Biochemistry

Govt . Degree college for women Karimnagar

Course outcomes (Cos):

At the successful completion of the course, the students are expected

- Become familiar with the fundamentals of Biochemistry at undergraduate level.
- Exhibit certain levels of learning outcomes such as, Understanding of discipline, critical thinking, problem solving, analytical and scientific reasoning, research/industry related skills, etc.
- Get exposed to a wide range of careers that combine biology, and medicine.

CO1. Chemistry of Biomolecules: The students will get basics of the biomolecules & will understand the structure, functions and biochemical reactions of the biomolecules.

CO2. Chemistry of Nucleic Acids & Biochemical Techniques: To understand the chemistry & functions of nucleic acids and to gain an insight into the principle of working of various techniques used for the biochemical analysis of biomolecules.

CO3. Bioenergetics, biological oxidation & Enzymology: The student will also have an understanding about the fundamental energetics of biochemical processes. The student will be able to describe structure, functions, mechanisms of action of enzymes, kinetics of enzyme catalyzed reactions and enzyme inhibitory and regulatory process.

CO4. Intermediary Metabolism: To have an indepth view on metabolism and to describe how biomolecules (carbohydrates, lipids, amino acids and nucleic acids) are synthesized and degraded in the body.

CO5. Physiology & Clinical Biochemistry: The students will gain knowledge regarding the digestion of biomolecules and physiology of various organs such as heart, muscle and nervous system. The student will also gain knowledge regarding the chemistry, physiological role and

disorders of various hormones of human body. To gain knowledge regarding the clinical tests to identify various diseases pertaining to liver, kidney, heart.

CO6. Molecular Biology: To understand the basics of replication, transcription and translation processes and their regulation.

CO7. Nutrition & Immunology: The student will be able to comprehend the structure, role of nutrients & their deficiency disorders .To be able to understand about the organs and cells involved in the immunological response, immunoglobulin's, antigen-antibody interactions and vaccines. To get overall knowledge on human body defense mechanism.

CO8. Microbiology & r-DNA Technology: The student will be able to understand basic knowledge on bacteria and viruses and the basics of genetic engineering, tools of r-DNA technology, principle and applications of blotting and gene cloning.

CO9. Cell biology & genetics: To have in depth understanding of cell structure and its functions and to be able to describe the gene interactions, mutations, linkage analysis and bacterial genetics.

CO10. Biotechnology: To have basic knowledge regarding the plant tissue culture, animal tissue culture techniques and to get knowledge on microbial and environmental biotechnology.

GOVERNMENT DEGREE COLLEGE FOR WOMEN, KARIMNAGAR

DEPARTMENT OF BIOTECHNOLOGY

COURSE OUTCOMES OF BIOTECHNOLOGY

SEMESTER-I

Title of Paper : **BS 104: Cell Biology and Genetics**

Credits : **4+1=5**

Hours Per Week : **4+3=7**

At the end of the course the students will be able to

- Understand the basic unit of the organism.
- Differentiate the organisms by its cell structure.
- Know Components of the Cell and their division and apoptosis
- Discuss and differentiate the basic structure and function of cell components in prokaryotes and eukaryotes cells.
- Analyse the functioning of life at cellular level.
- Explain the mechanism of inheritance, incomplete & Codominance.
- Understand extra nuclear inheritance, linkage, recombination & crossing over.

SEMESTER-II

Title of Paper : **BS 204: Biological Chemistry and Microbiology**

Credits : **4+1=5**

Hours Per Week : **4+3=7**

At the end of the course the students will be able to

- Explain the definition, importance, classification, biological functions, structure and properties of Biomolecules.
- Enzymes nomenclature, classification, importance, mechanism of action and inhibition.
- Explain bioenergetics, oxidative phosphorylation, reactions of amino acids.
- Explain the principle and application of various types of Microscopy.
- Describe the classification, structure, characteristics of microorganisms.
- Disease causing pathogens and symptoms
- Culture and identification, nutrition, growth of microorganisms.
- Prepare various bacteriological, algal, fungal media and buffers.
- Understand qualitative and quantitative techniques of Biomolecules.
- Isolate and stain bacteria and other microorganisms.

SEMESTER-III

Title of Paper	:	BS 305: Molecular Biology and Recombinant DNA Technology
Credits	:	4+1=5
Hours Per Week	:	4+3=7

At the end of the course the students will be able to

- Explain genome organization in prokaryotes, eukaryotes, mitochondria and chloroplast.
- Explain the concepts of DNA replication in eukaryotic and prokaryotic organisms.
- Explain mutations and gene expression in prokaryotes and eukaryotes.
- Explain gene regulation in prokaryotes and eukaryotes
- Explain post transcriptional and post translational modifications.
- Discuss about enzymes of rDNA technology, cloning vectors, gene transfer techniques and applications of rDNA technology.
- Isolate DNA of bacteria and plasmid, quantification of DNA, separate proteins.
- Explain Polymerase chain reaction.

SEMESTER-IV

Title of Paper	:	BS 405: Bioinformatics and Biostatistics
Credits	:	4+1=5
Hours Per Week	:	4+3=7

At the end of the course the students will be able to

- Know about the Interaction of Computer and Biology.
- Understand the Knowledge about Protein and Genome sequence databases.
- Explain sequence alignment basics and types, concepts of phylogeny.
- Understand Bio statistical Analysis of the Biological Experiments.
- Understand central tendency, probability, dispersion, probability distributions.
- Use various methods in experiments and applications of Z-test, t-test, chi-square test, hypothesis testing, ANOVA.
- Explore web portals, sequence retrieval.

SEMESTER-V

Title of Paper	:	BS 504: Plant Biotechnology
Credits	:	4+1=5
Hours Per Week	:	4+3=7

At the end of the course the students will be able to

- Establish different types of plant cultures.
- Prepare media, explain sterilization, organogenesis and somatic embryogenesis.
- Explain and explore applications of plant tissue culture, cryopreservation.
- Explain micro propagation, encapsulation, cell suspension cultures
- Explain production of transgenic plants and methods of direct gene transfer techniques.
- Gain knowledge about genome editing, herbicide resistant, insect resistant, virus resistant, bacterial and fungal resistant transgenic plants and their applications
- Explain about transgenic plants as bioreactors.
- Gain practical knowledge of callus cultures, sterilization of explants, cell suspension cultures, synthetic seeds preparation, media preparation for plant tissue cultures.

SEMESTER-VI

Title of Paper	:	BS 604: Environmental Biotechnology
Credits	:	4+1=5
Hours Per Week	:	4+3=7

At the end of the course the students will be able to

- Apply the concepts of Biotechnology in Environmental Management.
- Describe the concept of pollution management.
- Explain various methods of environmental pollution and pollutants.
- Explain about biofuels and biomass types and applications and production.
- Describe concepts of biopesticides, biofertilization, its types & uses.
- Explains bioremediation of environmental pollutants.
- Explain various waste water treatment methods, composting of organic wastes.
- Describes phytoremediation concepts and applications.
- Gain practical knowledge about BOD, COD, Dissolved solids in water, production of microbial biofertilizer and isolation of microorganisms from polluted soil & industrial effluents.

B.Sc., BOTANY
First Year, I -Semester
Paper-I
Microbial Diversity and Lower Plants

DSC - 1A (4 hrs./week)

Credits- 4

Theory Syllabus

(60 hours)

(15 hours)

UNIT – I

- 1) **Bacteria:** Structure, nutrition, reproduction and economic importance. Brief account of Archaeobacteria, Actinomycetes and Mycoplasma with reference to little leaf of Brinjal and Papaya leaf curl
- 2) **Viruses:** Structure, replication and transmission; plant diseases caused by viruses and their control with reference to Tobacco Mosaic and Rice Tungro.
- 3) An outline of plant diseases of important crop plants caused by bacteria and their control with reference to Angular leaf spot of cotton and Bacterial blight of Rice.

(15 hours)

UNIT-II

- 1) General characters, structure, reproduction and classification of algae (Fritsch)
- 2) **Cyanobacteria:** General characters, cell structure their significance as biofertilizers with special reference to Oscillatoria, Nostoc and Anabaena.
- 3) Structure and reproduction of the following:
Chlorophyceae- Volvox, Oedogonium and Chara.
Phaeophyceae- Ectocarpus
Rhodophyceae- Polysiphonia.

(15 hours)

UNIT-III

- 1) General characters and classification of fungi (Ainsworth).
- 2) Structure and reproduction of the following:
 - (a) Mastigimycotina- Albugo
 - (b) Zygomycotina- Mucor
 - (c) Ascomycotina- Saccharomyces and Penicillium.
 - (d) Basidiomycotina- Puccinia
 - (e) Deuteromycotina- Cercospora.
- 3) Economic importance of lichens

(15 hours)

UNIT-IV

- 1) **Bryophytes:** Structure, reproduction, life cycle and systematic position of Marchantia, Anthoceros and Polytrichum, Evolution of Sporophyte in Bryophytes.
- 2) **Pteridophytes:** Structure, reproduction, life cycle and systematic position of Rhynia, Lycopodium, Equisetum and Marsilea.
- 3) Stelar evolution, heterospory and seed habit in Pteridophytes.

OUT COMES OF SEM-I MICROBIAL DIVERSITY AND LOWER PLANTS

1. Students can know about microorganisms like Bacteria & viruses .
2. Students know the importance of Bacteria & yet the same time diseases caused by bacteria and viruses to plants and animals and their control methods.
3. Students can understand different types of cyanobacteria and algal member present in the water and Soil and Nitrogen fixation of cyanobacteria.
4. Students know about many fungi present in the environment and their importance and damage caused to plants and animals.
5. They also know about the importance of lichens.
6. Students understand about amphibian plants like bryophytes and their role in the environment.
7. Students know about Vascular cryptogams pteridophytes and evolution of stelar system.

B.Sc (CBCS) Botany-III Year
Semester-V - Paper VI
Elective I
Ecology & Biodiversity

DSE-1E (3 hrs./week)

Theory Syllabus

Credits-3
(45 hours)

UNIT - I

1. Concept and components of Ecosystem. Energy flow, food chains, food webs, ecological pyramids, Biogeochemical cycles - Carbon Cycle (4h)
2. Definition of Environment: Atmosphere (Troposphere, Stratosphere, Mesosphere, Ionosphere), Hydrosphere, Lithosphere & Biosphere. (3h)
3. Plants and environment: Ecological factors - Climatic (Light and Temperature), and biotic. Ecological adaptations of plants. (5h)
4. Edaphic Factors: Soil- Formation- Weathering, mode of formation-residual; Transported: Colluvial, Alluvial, Glacial & Eolian. Soil erosion & Conservation. (4h)

UNIT - II

5. Population ecology: Natality, Mortality, Growth curves, Ecotypes & Ecads. (4h)
6. Community ecology: Frequency, density cover, Life forms & Biological spectrum. (4h)
7. Community Dynamics: Succession - Serial stages, Modification of physical environment, Climax formation with reference to Hydrosere and Xerosere. (4h)
8. Production ecology: Concepts of productivity - Primary and Secondary Productivity. (4h)

UNIT- III

9. Biodiversity: Concepts, Convention of Biodiversity - Earth Summit (Copenhagen). (4h)
10. Biodiversity- Levels, threats and value (3h)
11. Hot spots of India - North Eastern Himalayas, Western Ghats; Endemism. IUCN categories, RED data book (3 h)
12. Principles of conservation - *In situ* and *Ex situ*. Role of organizations in the conservation of Biodiversity - WWF and NBPGR. (3h)

Out comes:

1. Students can understand the ecological relationships between organisms and their environment .
2. Students know the a biotic and biotic components and structure of earth .
3. Students know the structure food chain, food web, ecological pyramids.
4. Students know the distribution of different types of organisms in the environment.
5. They understand the process of succession.
6. Students understand concepts of biodiversity and protection of endangered plants.
7. They also know the rules and regulation acts by the government to protect the biodiversity by developing national parks, Botanical gardens, Zoo parks, Biosphers.
8. They know the hotspots present in the world and India and how to conserve them.

B.Sc., BOTANY

First Year, II -Semester

Paper-II

Gymnosperms, Taxonomy of Angiosperms and Ecology

DSC-1B

Credits-4

Theory Syllabus

(60 hours)

UNIT-I

(15 hours)

- 1) Gymnosperms: General characters, structure, reproduction and classification (Sporne's). Distribution and economic importance of Gymnosperms.
- 2) Morphology of vegetative and reproductive parts, systematic position and life cycle of Pinus and Gnetum,
- 3) Geological time scale Introduction to Palaeobotany, Types of fossils and fossilization, Importance of fossils.

UNIT-II

(15 hours)

- 1) Introduction: Principles of plant systematics, Types of classification: Artificial, Natural and Phylogenetic; Systems of classification: Salient features and comparative account of Bentham & Hooker and Engler & Prantl classification systems. An introduction to Angiosperm Phylogeny Group (APG).
- 2) Current concepts in Angiosperm Taxonomy: Embryology in relation to taxonomy Cytotaxonomy, Chemotaxonomy and Numerical Taxonomy.
- 3) Nomenclature and Taxonomic resources: An introduction to ICN, Shenzhen code – a brief account. Herbarium: Concept, techniques and applications.

UNIT-III

(15 hours)

- 1) Systematic study and economic importance of plants belonging to the following families: Polypetalae Annonaceae, Capparidaceae, Rutaceae, Fabaceae (Faboideae/Papilionoideae, Caesalpinioideae, Mimosoideae), Cucurbitaceae
- 2) Gamopetalae: Apiaceae, Asteraceae, Asclepiadaceae, Lamiaceae, Monochalmydeae: Amaranthaceae, Euphorbiaceae
- 3) Monocotyledons: Orchidaceae, Poaceae and Zingiberaceae.

UNIT-IV

(15 hours)

1. Component of eco system, energy flow, food chain and food webs.
2. Plants and environment, ecological adaptations of plants, Hydrophytes, Xerophytes and Mesophytes
3. Plant Succession serial stages, modification of environment, climax formation with reference to Hydrosere and Xerosere.

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Outcomes of B.Sc.Botany, I Year,Semester II

Paper -II: Gymnosperms, Taxonomy of Angiosperms and Ecology

On completion of the course, students are able to:

1. Know the scope and importance of the discipline.
2. Understand the diversity of Gymnosperms in India.
3. Understand the economic importance of Gymnosperms.
4. Know the evolutionary trends and affinities of living Gymnosperms with respect to external and internal features.
5. Know the concept of methodology in Taxonomy.
6. Understand the plant morphology and basic taxonomy .
7. Understand the habit of the angiosperms.
8. Know the vegetative and floral characters of different plant families.
9. Understand the plant communities and ecological adaptations in plants.
10. Learn about the conservation of biodiversity and Non-conventional energy.

B.Sc. BOTANY
II Year: Semester-III
Paper – III: Plant Anatomy and Embryology

DSC - 1C

Credits- 4

Theory Syllabus

(60 hours)

UNIT – I

(18h)

1. Meristems: Types, histological organization of shoot and root apices and theories.
2. Tissues and Tissue Systems: Simple, complex and special tissues.
3. Leaf: Ontogeny, diversity of internal structure; stomata and epidermal outgrowths.
4. General account of adaptations in xerophytes and hydrophytes.

UNIT-II

(16h)

5. Stem and root anatomy: Vascular cambium - Formation and function.
6. Anomalous secondary growth of Stem - *Achyranthes*, *Boerhaavia*, *Bignonia*, *Dracaena*;
Root- *Beta vulgaris*
7. Wood structure: General account. Study of local timbers – Teak (*Tectona grandis*),
Rosewood (*Dalbergia latifolia*), Red sanders (*Pterocarpus santalinus*), Nallamaddi
(*Terminalia tomentosa*) and Neem (*Azadirachta indica*).

UNIT – III

(10h)

8. History and importance of Embryology.
9. Anther structure, Microsporogenesis and development of male gametophyte.
10. Ovule structure and types; Megasporogenesis; types and development of female gametophyte.

UNIT-IV

(16h)

11. Pollen morphology, pollination and fertilization, Pollination Types, Pollen – pistil interaction,
Double fertilization.
12. Seed – structure appendages and dispersal mechanisms
13. Endosperm – Development and types. Embryo development and types; Polyembryony
and Apomixis - an outline.

Course Learning outcomes:-

1. Student will develop the understanding of growth, development and reproduction in plants as well as understand the physiological and metabolic changes happening along with the environmental impact.
2. Students understand the arrangement of tissue and cells types within the dermal, ground and vascular tissue systems in vascular plants.
3. Students understand the characteristics of specialized cells and their components.
4. Students know the relationship between internal structure, physiology and ecology.
5. Students understand the history and taxonomic variation of vascular plant anatomy.
6. Students will be able to differentiate reproductive organs at Morphological, Anatomical, Physiological and Biochemical level.
7. This knowledge will be help to apply in agriculture for production of hybrids.
8. The allergic problems in Humans can be justified on the basis of pollens.

B.Sc. BOTANY
II YEAR: Semester-IV

Paper IV: Cell Biology, Genetics and Plant Physiology

DSC-1D Credits-4

Theory Syllabus

(60 hours)

UNIT I: (15h)

1. Plant cell envelops: Ultra structure of cell wall, Models of membrane structure, structure and functions of Semi permeable Plasma membrane.
2. Cell Organelles: Structure and semiautonomous nature of Mitochondria and Chloroplast.
3. Nucleus: Ultra structure, types and functions of DNA & RNA. Mitochondrial DNA & Plasmid DNA and Plasmids.
4. Chromosomes: Morphology, organization of DNA in a chromosome, Euchromatin and Heterochromatin, Karyotype. Special types of chromosomes: Lampbrush and Polytene chromosomes.
5. Cell division: Cell and its regulation; mitosis, meiosis and their significance

UNIT – II: (15 hours)

6. Mendelism: History, Principles of inheritance, Chromosome theory of inheritance, Autosomes and sex chromosomes, Incomplete dominance and Co-dominance. Multiple alleles, Lethal alleles, Epistasis, Recessive and Dominant traits, Polygenic inheritance.
7. Linkage and crossing over, Recombination frequency, two factor and three factor crosses; Interference and coincidence. Numericals based on gene mapping; Sex Linkage.
8. Variation in chromosome number and structure: Deletion, Duplication, Inversion, Translocation, Position effect, Euploidy and Aneuploidy
9. Gene mutations: Types of mutations; Molecular basis of Mutations; Mutagens-physical and chemical (Base analogs, deaminating, alkylating and intercalating agents);

Unit-III (15h)

10. Plant -water Relations: Water potential, osmosis, osmotic and pressure potential, absorption and transport of water.
11. Mineral Nutrition: Essential micro & macro nutrients and symptoms of mineral deficiency.
12. Transpiration: Stomatal structure and movement.
13. Mechanism of phloem transport.
14. Enzymes: Nomenclature, properties, Classification and factors regulating enzyme activity.

UNIT- IV (15h)

15. Photosynthesis: Photosynthetic pigments, Cyclic and Non-cyclic Photophosphorylation. Carbon assimilation pathways: C3, C4 and CAM.
16. Respiration: Aerobic and Anaerobic; Glycolysis, Krebs cycle and oxidative phosphorylation.
17. Nitrogen Metabolism: Biological nitrogen fixation.
18. Physiological role of Phytohormones: Auxins, gibberellins, cytokinins, ABA, ethylene and Brassinosteroids

Course Learning Outcomes:

1. They develop a strong fundamentals basics for further molecular studies.
2. Student will focus on various components of the eukaryotic nuclear and organellar genome, with special reference to their regulatory role.
3. They understand the principle mechanisms of genome replication, maintenance, function and regulation of expression.
4. They understand the pattern of inheritance in various life forms.
5. Students will be able to understand the various physiological life processes in plants .
6. They will also gain knowledge about the various uptake and transport mechanisms in plants and are able to coordinate the various processes. They understand the role of various hormones, signaling compounds, thermodynamics and enzyme kinetics. During the course students will gain knowledge about various mechanisms such as channel or transport proteins involved in nutrient uptake in plants.
7. The student will enrich themselves with the phenomenon of metabolism of primary and secondary metabolites and their role in plants.
8. They are upgraded in analytical skills and instrumentation

**GOVERNMENT DEGREE COLLEGE FOR WOMEN
KARIMNAGAR.**

**COURSE OUTCOMES
B.Sc. (Chemistry)
SEMESTER I**

Title of the Paper	Semester I
Course Code	BS 106
Number of Credits	04T+01P
Number of Hours	90 Hours

CO1: Describe the synthesis & list the various types of B, C, Si & N compounds.

CO2: Interpret the diagonal relationship of s block elements & understand physical & chemical reaction of Aliphatic & Alicyclic hydrocarbon.

CO3: Based on bond polarization acidity & basicity & stability of reactive intermediate of different hydrocarbons can be determined.

CO4: By considering principles of solubility product & common ion effect cation can be discriminated by anions in a salt mixture.

CO5: Have an idea of critical & van der Waals constant. By taking the criteria of wave function particle in a 1D box can be explained.

CO6: Predict the bond order & magnetic behaviour for various molecules on the basis of MOED. In a given, mathematical data, accuracy, precision & error can be explained.

CO7: Can understand about the Inorganic Qualitative Analysis. Can identify the Anions and Cations in the given salt mixture by performing systematic procedure.

CO8: Understand the definition of isomers. Classification of isomers. Stereoisomers: enantiomers and diastereomers – Representation of stereoisomers – Wedge, Fischer projection, Sawhorse, Newmann formulae.

CO9: Know the Laws of Crystallography, Definition of space lattice, unit cell. Bravais Lattices and Seven Crystal systems (a brief review). Derivation of Bragg's equation. Can Determine structure of NaCl, KCl and CsCl.

COURSE OUTCOMES
B.Sc. (Chemistry)
SEMESTER II

Title of the Paper	Semester II
Course Code	BS 206
Number of Credits	04T+01P
Number of Hours	90 Hours

CO1: Able to understand the physical and chemical properties of oxides Oxy- acids of zero group, p and d- block elements. Able to Predict the structure of Interhalogens, Pseudo halogens and Polyhalides.

CO2: Acquire Knowledge about various preparation and chemical reactivity of aromatic compounds, halogen compounds and alkyl benzene.

CO3: By kinetic study one can judge the order of reaction of halogen compound & by taking criteria of optical activity one can express the stereochemistry of SN1 &SN2.

CO4: Acquire knowledge of preparation, physical and chemical properties of alcohols, ethers and phenols. Learn various oxidation and reduction reactions of carbonyl compounds. Appreciates various named reactions in organic chemistry.

CO5: Appreciates and learns about the Electrochemistry - Electrical transport – conduction in metals and in electrolyte solutions, specific conductance and equivalent conductance, measurement of equivalent conductance, variation of specific and equivalent conductance with dilution. Kohlrausch’s law, Arrhenius theory of electrolyte dissociation and its limitations, Ostwald’s dilution law, Debye-Huckel-Onsagar’s equation, solubility product of a sparingly soluble salt, conductometric titrations. Nernst equation, Gibbs free energy G, Helmholtz free energy and Equilibrium constant.

CO6: The study of colligative properties helps to determine molecular masses of solutes, Nernst distribution law used to determine association & dissociation of solute in solvent, by using Bragg’s equation various crystal structure can be determined & by qualitative analysis one can determine the weight of chemical substances.

COURSE OUTCOMES
B.Sc. (Chemistry)
SEMESTER III

Title of the Paper	Semester III
Course Code	BS 206
Number of Credits	04T+01P
Number of Hours	90 Hours

CO1: Defines the properties of f-block elements and non-aqueous solvents

CO2: Gains knowledge about the coordinate complexes. Nomenclature – IUPAC rules, Various theories of coordination chemistry and Isomerism in coordination compounds.

CO3: Learns about the Preparation and properties of Metal carbonyls, Definition, nomenclature and classification of organometallic compounds.

CO4: Learns about the Preparation and Properties of the Carboxylic Acids and their derivatives, Nitro hydrocarbons, Amines, Cyanides and Isocyanides. Gains knowledge about the important Named Reactions.

CO5: Understands the concept of system, variables, heat, work and laws of thermo dynamics, concept of entropy, reversible, irreversible processes. Calculation of entropy using 3rd law of thermodynamics, Joule Thompson effect, partial molar quantities, Free energy Gibbs function (G) and Helmholtz's function (A) as thermodynamic quantities. Derivation of equation $\Delta G = \Delta H - T\Delta S$. Gibbs equations and Maxwell relations. Variation of G with P, V and T.

CO6: Significant figures, accuracy and precision. Errors-classification of errors- determinate and indeterminate errors, absolute and relative errors. Mean, Median, Range, Standard deviation.

CO7: Understands the Phases, Components, Gibbs Phase Rule, Phase Diagrams and Applications.

CO8: Understands the concept of stability of carbanions: Aldol reaction, Perkin reaction, Benzoin condensation, haloform reaction, conversion of smaller alkynes to higher alkynes.

COURSE OUTCOMES
B.Sc. (Chemistry)
SEMESTER IV

Title of the Paper	Semester IV
Course Code	BS 306
Number of Credits	04T+01P
Number of Hours	90 Hours

CO1: Understands the concept of Crystal Field Theory and d-Orbital splitting pattern, High Spin and Low spin Complexes. HSAB Principle. Determines the stability of complexes and stability constants using Jobs method.

CO2: Gains knowledge about essential elements, biological significance of Na, K, Mg, Ca, Fe, Co, Ni, Cu, Zn and chloride. Toxic metal ions As, Hg & Pb Structure of chlorophyll and coordination of magnesium. Electron transport in light reactions from water to NADP⁺ (Z – scheme).

CO3: Learns about the Carbohydrates Glucose and Fructose their structure determination and properties.

CO4: Learns about the Classification. Methods of synthesis: General methods of synthesis of alpha amino acids. Zwitter ion structure, definition of isoelectric point. Primary structure of proteins, di peptide synthesis.

CO5: Understands the Heterocyclic Compounds 5 membered ring compounds with one hetero atom Ex. Furan. Thiophene and pyrrole. Importance of ring systems –Numbering. Aromatic character.

CO6: Understand the basics of chemical kinetics, determination of order and molecularity of the reactions. Understands the theories of reaction rates. Determination of rate of opposing/parallel/chain reactions with suitable examples..

CO7: Understands the concept of photochemical reactions, Difference between thermal and photochemical reactions, Laws of photo chemistry, Quantum yield. Jablonski diagram. Explanation of internal conversion, inter-system crossing, phosphorescence, fluorescence.

CO8: Understands the Theories of bonding in metals conductors, semiconductors n-type and p-type, extrinsic & intrinsic semiconductors, and insulators.

CO9: Defines the colloids, Understands the Classification of colloids. Preparations and properties, Hardy– Schultz law, Gold number. Emulsions, preparation and emulsifier. Adsorption isotherms Freundlich adsorption isotherm. Langmuir adsorption isotherm.

CO10: Practically learns the Qualitative Analysis of Organic Compounds

Title of the Paper	REMEDIAL METHODS FOR POLLUTION, DRINKING WATER AND SOIL FERTILITY STANDARDS
Course Code	BS 301
Number of Credits	02
Number of Hours	30 Hours

CO1: Gains knowledge about the Pollution Prevention and control of air pollution.

CO2: Understands the Water Quality and Common Treatments for Private Drinking Water Systems. Soil Chemistry, Effect of pH on nutrient availability. Macronutrients, Macronutrients. Determination of soil nitrogen by Kjeldahl method.

Title of the Paper	Materials and their Applications
Course Code	BS 401
Number of Credits	02
Number of Hours	30 Hours

CO1: Understands the Materials and their importance. Types of Materials: Metals, ceramics, polymers and composites.

CO2: Classifies of Polymeric materials based on application: Coatings, adhesives, films, foams, Fillers, Plasticizers, Stabilizers, Colorants, Flame Retardants, Advanced Materials: semiconductors, bio-compatible materials, smart materials, advanced polymeric materials and nano-engineered materials.

COURSE OUTCOMES
B.Sc. (Chemistry)
SEMESTER V

Title of the Paper	Spectroscopy and Chromatography
Course Code	BS 506
Number of Credits	04T+01P
Number of Hours	90 Hours

CO1: Understands the basic principles of Spectroscopy, Rotational Spectroscopy, UV-Visible Spectroscopy, Electronic Spectroscopy.

CO2: Understands the Basic Principles of NMR Spectroscopy and its application.

CO3: Understands the Basic Principles of Mass Spectroscopy and its application.

CO4: Solving the problems related to different spectroscopic techniques.

CO5: Understands the Instrumental methods of analysis. Solvent extraction method and different chromatographic techniques like TLC, Column Chromatography, GC, HPLC etc.

B.Sc. (Chemistry)
SEMESTER V
(GE Paper)

Title of the Paper	Chemistry of Cosmetics, Food Processing, Drugs and Pharmaceuticals
Course Code	BS 501
Number of Credits	04
Number of Hours	60 Hours

CO1: Understands the preparation and uses of Hair dye, hair Spray, Shampoo, Sunscreen Lotion, Lipsticks, Talcum Powder, Nail enamel, Cold & Vanishing Creams, Shaving Cream

CO2: Understands the chemistry involved in food processing, food adulteration, food packaging and importance of labelling.

CO3: Understands the Terminology of Drugs. Drug Design and Synthesis of Drugs. Drug Metabolism and Classification of Drugs.

COURSE OUTCOMES
B.Sc. (Chemistry)
SEMESTER VI

Title of the Paper	Medicinal Chemistry
Course Code	BS 606
Number of Credits	04T+01P
Number of Hours	90 Hours

CO1: Understands the terminology of Medicinal Chemistry. Absorption, Diffusion, Metabolism, Excretion and Toxicology of Drugs. Classification and nomenclature of Drugs.

CO2: Gains knowledge about the Receptors and Enzymes.

CO3: Learns about the synthesis and therapeutic activity of various drugs.

CO4: Understands molecular messengers, vitamins and micronutrients.

Government Degree College for Women, Karimnagar. TS.
Department of Commerce
B.Com Computer Applications

The bachelor of commerce degree is the most popular degree amongst students. This degree is perfect to get a good job in a multitude of companies spread across a wide variety of industries. A student holding a B.Com Degree is well prepared to sustain as a corporate employee or as an entrepreneur. The student has adequate knowledge of adapting to the changes in the flexible business world. On the other hand, if the student chooses to start their own business, they can run it successfully and professionally without having to pay to expert accountants. By the end of the program, students gain an in-depth knowledge on core subjects like accounting, Law, Statistics, Finance, Marketing etc. This course opens doors to Professional career opportunities like Chartered Accountancy (CA), Company Secretary (CS), Cost and Work Accountancy (CWA).

A B.Com student can explore numerous career options after obtaining the degree. Looking for career prospects in the interdisciplinary domains of commerce can provide excellent job opportunities. Once a student graduated with B.Com, they can choose their preferred job profile from the numerous options available like Accountant, Accountant Executive, Banking, Tax Auditor, Finance Manager, Marketing, Cost Accountant, Finance Analyst, Finance Planner, Portfolio Manager, Investment Analyst, Finance Consultant, Stock Broker, Tax Consultant, Auditor and many more.

Program outcomes

Upon completion of the B.Com Computer Applications Program the students will be able to

- ◆ Learn and will gain knowledge of Accounting and acquire skills of maintaining accounts of the business concerns.
- ◆ The students would be able to understand the role of business or industry and its implications on society and could setup their own entities, or pursue further professional and other higher education courses.
- ◆ The students could acquire Entrepreneurial, legal and managerial skills.
- ◆ The students will be able to prepare financial statements of business concerns using accounting principles, concepts, conventions and provisions.
- ◆ The students can implement traditional and modern techniques and practices of Costing, Banking, Business Economics, Marketing, Human Resource Management, Auditing and Taxation.
- ◆ The students will develop the skills and techniques of communication and information technology to be successful in their Career and personal life.

SLNO.	TITLE OF THE PAPER	COURSE CODE	HOURS PER WEEK	CREDITS	B.Com COURSE OUTCOME
	SEMESTER I				
1	FINANCIAL ACCOUNTING –I	DSC101	5	5	<ul style="list-style-type: none"> ◆ The students can learn theoretical and practical knowledge of financial accounting. ◆ To enable the students to acquire the conceptual knowledge of Accounting ◆ To equip the students with the knowledge of accounting process and preparation of Final Accounts. ◆ To develop the skills of recording financial transactions and to prepare various financial accounts.

	BUSINESS ORGANISATION AND MANAGEMENT	DSC102	5	5	<ul style="list-style-type: none"> ◆ To understand the basic fundamentals of business and forms of business enterprises. ◆ To learn about different Management functions. ◆ To understand the basic concepts of planning, organizing, authority and control of business units.
SEMESTER II					
4	FINANCIAL ACCOUNTING – II	DSC 201	5	5	<ul style="list-style-type: none"> ◆ To understand the different forms of accounts to be maintained for various business units. ◆ To utilize and calculate income and expenditure of nonprofit organizations. ◆ To learn the procedure of accounts from incomplete records.
5	BUSINESS LAWS	DSC202	5	5	<ul style="list-style-type: none"> ◆ To learn the basics of laws governing a company. ◆ Students would learn the rules regarding

					<p>the Indian Contract Act 1872, Consumer Protection Act 1986, Information Technology Act 2000 and the Company Law.</p> <ul style="list-style-type: none"> ◆ To understand the various provisions of Intellectual Property Rights. ◆ To gain knowledge on the legal formalities of business.
SEMESTER III					
7	ADVANCED ACCOUNTING	DSC301	5	5	<ul style="list-style-type: none"> ◆ To understand the process of accounting treatment for partnership ◆ Accounts. ◆ To learn about goodwill and distribution of goodwill in various cases. ◆ To know various types of issue of shares and distribution of dividends to shareholders. ◆ To prepare the of Company accounts.
8	BUSINESS STATISTICS-I	DSC302	5	5	<ul style="list-style-type: none"> ◆ To develop the students ability to deal with numerical and quantitative data in tabulation.

					<ul style="list-style-type: none"> ◆ To use basic mathematical and statistical testing tools for data analysis. ◆ The students can learn how to represent the data in different forms.
SEMESTER IV					
10	INCOME TAX	DSC401	5	5	<ul style="list-style-type: none"> ◆ To learn the concepts of income tax, tax procedure and how to calculate the various forms of taxable incomes. ◆ To learn the various provisions of Income tax.
11	BUSINESS STATISTICS -II	DSC402	5	5	<ul style="list-style-type: none"> ◆ How to apply discrete and continuous probability distributions to various businesses. Compute and interpret the results of regression and correlation analysis ◆ To understanding to concepts include measurements of probability, probability distribution

					<ul style="list-style-type: none"> ◆ Index numbers are used to measure all types of quantitative changes in the agricultural, industrial, and commercial fields
SEMESTER V					
13	BUSINESS ECONOMICS	GE	4	4	<ul style="list-style-type: none"> ◆ To study and understand business economics and their application in business firm. ◆ To study and understand production and cost functions. ◆ To understand micro and macro concepts of economic systems. ◆ To understand about Demand and Supply under different marketing conditions.
14	COST ACCOUNTING	DSE501	5	5	<ul style="list-style-type: none"> ◆ To impart conceptual knowledge of cost accounting. ◆ To train the students in finding the cost of the production using different methods of costing.

15	COMPUTERIZED ACCOUNTING	DSE502	3T+4P	5	<ul style="list-style-type: none"> ◆ The students can learn the ability to process accounts receivables, accounts payable, inventory control and payroll system. ◆ To students learn to record day to day transactions in ERP. ◆ The students will be able to generate MIS reports.
SEMESTER VI					
17	RESEARCH METHODOLOGY AND PROJECT REPORT	PR	2T+4R	4	<ul style="list-style-type: none"> ◆ To know the basic data collection methods with emphasis on Primary and secondary survey research. ◆ To learn various types of tests for tabulation of the data. ◆ To be able to construct basic samples for use in different types of studies and learn how to use different sampling techniques.

18	COST CONTROL AND MANAGEMENT ACCOUNTING	DSE601	5	5	<ul style="list-style-type: none"> ◆ To enable the students to analyze the financial statements by applying various tools and interpret the results of financial statements. ◆ The course will provide decision making skills to the students in the financial analysis context. ◆ To apply various ratios for knowing the percentages for strategic decision making.
19	THEORY AND PRACTICE OF GST	DSE602	3T+4P	5	<ul style="list-style-type: none"> ◆ To make the students acquire the importance of Indirect taxes in India and the journey of GST in India Since the year 2004. ◆ Students will be able to develop Application of GST in tally ERP 9, recording business transaction in relating to business and other relevant areas which have to be filed by the Business entity as per GST law. ◆ To study and understand the reasons behind the implementation of GST in India and its effect on all the sectors of Economy.

					<ul style="list-style-type: none"> ◆ To develop the skills of Practical exposure to GST in businesses.
B.COM CA SEMESTER V (2020-2021)					
1	COST ACCOUNTING	DSC-1E	5	5	<ul style="list-style-type: none"> ◆ To impart conceptual knowledge of cost accounting. ◆ To train the students in finding the cost of the production using different methods of costing.
2	BUSINESS LAW	DSC-2E	5	5	<ul style="list-style-type: none"> ◆ To learn the basics of laws governing a company. ◆ Students would learn the rules regarding the Indian Contract Act 1872, Consumer Protection Act 1986, Information Technology Act 2000 and the Company Law. ◆ To understand the various provisions of Intellectual Property Rights. ◆ To gain knowledge on the legal formalities of business.

3	BANKING THEORY AND PRACTICE	DSC-3E	5	5	<ul style="list-style-type: none"> ◆ Discuss and evaluate the theories relating to the role of banks as financial intermediaries. ◆ Explain how bank-based systems differ from market-based system. ◆ To understand the structure of Indian Financial system and its operations in Economic development of India.
4	FINANCIAL INSTITUTIONS AND MARKETS	DSC-4E	5	5	<ul style="list-style-type: none"> ◆ To understand money market and Capital market its types and functioning. ◆ To know about various financial institutions and Developmental banks in India
5	COMPUTERIZED ACCOUNTING	DSE-2E	3T+4P	5	<ul style="list-style-type: none"> ◆ The students can learn the ability to process accounts receivables, accounts payable, inventory control and payroll system. ◆ To students learn to record day to day transactions in ERP. ◆ The students will be able to generate MIS reports.

**B.COML GENERAL
EM & TM**

**SEMESTER V (2020-
2021)**

1	COST ACCOUNTING	DSC-1E	5	5	<ul style="list-style-type: none">◆ To impart conceptual knowledge of cost accounting.◆ To train the students in finding the cost of the production using different methods of costing.
2	BUSINESS LAW	DSC-2E	5	5	<ul style="list-style-type: none">◆ To learn the basics of laws governing a company.◆ Students would learn the rules regarding the Indian Contract Act 1872, Consumer Protection Act 1986, Information Technology Act 2000 and the Company Law.◆ To understand the various provisions of Intellectual Property Rights.◆ To gain knowledge on the legal formalities of business.

3	BANKING THEORY AND PRACTICE	DSC-3E	5	5	<ul style="list-style-type: none"> ◆ Discuss and evaluate the theories relating to the role of banks as financial intermediaries. ◆ Explain how bank-based systems differ from market-based system. ◆ To understand the structure of Indian Financial system and its operations in Economic development of India.
4	COMPUTERIZED ACCOUNTING	DSC-4E	3T+4P	5	<ul style="list-style-type: none"> ◆ The students can learn the ability to process accounts receivables, accounts payable, inventory control and payroll system. ◆ To students learn to record day to day transactions in ERP. ◆ The students will be able to generate MIS reports.
5	FINANCIAL MANAGEMENT	DSE-1E	5	5	<ul style="list-style-type: none"> ◆ To know about various sources of finance, financial planning and its importance. ◆ The students can have knowledge on sources of capital, consequences of under and over capitalization. ◆ To learn various Theories of capital structure and approaches.

6	PRINCIPLES OF MARKETING	DSE-2E	5	5	<ul style="list-style-type: none"> ◆ The students are enabled to understand various marketing concepts, market environment and market segmentation. ◆ To learn about 4 Ps, and consumer behavior and organizational behavior towards various marketing situations.
<p>B.COM CA</p> <p>SEMESTER VI (2020-2021)</p>					
1	MANAGERIAL ACCOUNTING	DSC-1E	5	5	<ul style="list-style-type: none"> ◆ To learn the costing techniques required for materials, labour and overhead. ◆ To know the purpose of budgetary control, product and pricing decision making to make or buy. ◆ To understand about working Capital estimations.
2	COMPANY LAW	DSC-1E	5	5	<ul style="list-style-type: none"> ◆ To know the background procedure for incorporation of company.

					<ul style="list-style-type: none"> ◆ Students would learn about Company Director appointment, removal, duties, and liabilities. ◆ To know various company meetings and procedure for winding up of a company
3	AUDITING	DSC-1E	5	5	<ul style="list-style-type: none"> ◆ The Students would outline the basic objectives of Auditing, concepts of errors and frauds, principles of audit and different types of audit. ◆ Students would learn about Company Director appointment, removal, duties, and liabilities. ◆ To understand the importance of Vouching, verification and valuation of different assets and liabilities of a company.
4	COMMERCE LAB	DSC-1E	3T+4P	5	<ul style="list-style-type: none"> ◆ Practical orientation on matters relating to formation of business organization and Documents of finance, Banking and Insurance companies. ◆ To develop knowledge of Documents of Taxation like PAN, TAN, TDS, Application and license, Registration.

					<ul style="list-style-type: none"> ◆ To know the procedure of incorporation of companies, purpose and Powers of authorities like RBI, SEBI, IRDA.
	<p>B.COM GENERAL EM & TM</p> <p>SEMESTER V (2020-2021)</p>				
1	MANAGERIAL ACCOUNTING	DSC-1E	5	5	<ul style="list-style-type: none"> ◆ To learn the costing techniques required for materials, labour and overhead. ◆ To know the purpose of budgetary control, product and pricing decision making to make or buy. ◆ To understand about working Capital estimations
2	COMPANY LAW	DSC-1E	5	5	<ul style="list-style-type: none"> ◆ To know the background procedure for incorporation of company. ◆ Students would learn about Company Director appointment, removal, duties, and liabilities. ◆ To know various company meetings and procedure for winding up of a company

3	AUDITING	DSC-1E	5	5	<ul style="list-style-type: none"> ◆ The Students would outline the basic objectives of Auditing, concepts of errors and frauds, principles of audit and different types of audit. ◆ Students would learn about Company Director Appointment, removal, duties, and liabilities. ◆ To understand the importance of Vouching, verification and valuation of different assets and liabilities of a company.
4	COMMERCE LAB	DSC-1E	3T+4P	5	<ul style="list-style-type: none"> ◆ Practical orientation on matters relating to formation of business organization and Documents of finance, Banking and Insurance companies. ◆ To develop knowledge of Documents of Taxation like PAN, TAN, TDS, Application and license, Registration. ◆ To know the procedure of incorporation of companies, purpose and Powers of Authorities like RBI, SEBI, IRDA.

5	HUMAN RESOURCE MANAGEMENT	DSE-1E	5	5	<ul style="list-style-type: none"> ◆ The students could be able to develop the recruitment and selection strategies for different employment opportunities. ◆ The students are able to know the importance of Human Resource Development and proper HR planning process. ◆ To understand the importance of types of Appraisal system in the organizations.
6	TAX PLANNING & MANAGEMENT	DSE-2E	5	5	<ul style="list-style-type: none"> ◆ To understand different types of incomes and their taxability. ◆ To provide theoretical knowledge in the fields of tax planning. ◆ To learn the tax planning methods of salaried and Income from House property, Capital gains.

GOVERNMENT DEGREE COLLEGE FOR WOMEN, KARIMNAGAR
DEPARTMENT OF COMPUTER SCIENCE AND APPLICATIONS

SUBJECT: COMPUTER SCIENCE AND APPLICATIONS
COURSE OUTCOME

Computer programming courses give us an extensive understanding of **various computer operating systems**. In these courses, we can expect to learn how to configure operating systems to work with various kinds of hardware.

A good computer course in a programming language will teach you to **decode computer data, develop software using codes**, and even design software applications over time.

Some core computer science courses you may cover include **theory of computation**, fundamentals of computer science, compilers and operating systems, information theory, basic programming, systems and architecture, software development and testing, web applications and databases, algorithms and data structures, and so on.

FIRST YEAR
SEMESTER I

S.NO	PROGRAMME	TITLE	COURSE CODE	HOURS PER WEEK	CREDITS	OUTCOME
1	B.Com(CA)	Fundamentals of Information Technology	DSC103	3T + 4P	5	<ul style="list-style-type: none">• Explain how a computer works, including but not limited to hardware, network, and security features.• Describe how an operating system interacts with hardware and software and principal differences in various operating systems.

						<ul style="list-style-type: none"> • Explain how computers are networked, and the protocols that govern internet and application communication. • Explain basic cybersecurity issues regarding computer operating systems and networks. • Identify computer systems components and their functions and how the fundamentals of a processor function. • Summarize the assembly and configurations of computer systems, networks, and applications.
2	B.Sc(CS)	Programming in C	DSC - I	4T + 3P	5	<ul style="list-style-type: none"> • Students will be able to develop logics which will help them to create programs, applications. • By learning C, Students will be able to visualize the inner workings of computer systems, their architecture & the concepts that drive programming. • Students will be able to work on open source projects. • Learners can go to the indeed job search portal to look for open positions in C programming. • Knowing C makes learner a good fit for all kinds of domains. • Teaches students to write code that is exceedingly more efficient in c
3	B.A & B.Sc(CA)	Programming in C	DSC - I	4T + 3P	5	<ul style="list-style-type: none"> • Students will be able to develop logics which will help them to create programs, applications. • By learning C, Students will be able to visualize the inner workings of computer systems, their architecture & the concepts that drive programming.

						<ul style="list-style-type: none"> • Students will be able to work on open source projects. • Learners can go to the indeed job search portal to look for open positions in C programming. • Knowing C makes learner a good fit for all kinds of domains. • Teaches students to write code that is exceedingly more efficient in c
4	B.Sc (Data SCIENCE)	Fundamentals of Information Technology	DSC - A	4T + 3P	5	<ul style="list-style-type: none"> • Explain how a computer works, including but not limited to hardware, network, and security features. • Describe how an operating system interacts with hardware and software and principal differences in various operating systems. • Explain how computers are networked, and the protocols that govern internet and application communication. • Explain basic cybersecurity issues regarding computer operating systems and networks. • Identify computer systems components and their functions and how the fundamentals of a processor function. <p>Summarize the assembly and configurations of computer systems, networks, and applications.</p>

SEMESTER II

S.NO	PROGRAMME	TITLE	COURSE CODE	HOURS PER WEEK	CREDITS	OUTCOME
1	B.Com(CA)	Programming with C & C++	DSC203	3T + 4P	5	<ul style="list-style-type: none"> • Students will be able to develop logics which will help them to create programs, applications. • By learning C, Students will be able to visualize the inner workings of computer systems, their architecture & the concepts that drive programming. • Students will be able to work on open source projects. • Learners can go to the indeed job search portal to look for open positions in C programming. • Knowing C makes learner a good fit for all kinds of domains. • Teaches students to write code that is exceedingly more efficient in c • Demonstrate an understanding of algorithms in the problem-solving process. • Identify the necessary properties of good problem-solving techniques. • Create and analyse algorithms for solving simple problems.
2	B.Sc(CS)	Programming in C++	DSC - II	4T + 3P	5	<ul style="list-style-type: none"> • Demonstrate an understanding of algorithms in the problem-solving process. • Identify the necessary properties of good problem-solving techniques. • Create and analyse algorithms for solving simple problems.

						<ul style="list-style-type: none"> • Use incremental program development to create, test, and debug algorithms for solving simple problems. • To describe the advantages of a high level language like C/C++, the programming process, and the compilation process • To describe and use software tools in the programming process • Describe the functions of an IDE • Use an IDE to compile, load, save, and debug a C/C++ program
3	B.A & B.Sc(CA)	Programming in C++	DSC - II	4T + 3P	5	<ul style="list-style-type: none"> • Demonstrate an understanding of algorithms in the problem-solving process. • Identify the necessary properties of good problem-solving techniques. • Create and analyse algorithms for solving simple problems. • Use incremental program development to create, test, and debug algorithms for solving simple problems. • To describe the advantages of a high level language like C/C++, the programming process, and the compilation process • To describe and use software tools in the programming process • Describe the functions of an IDE • Use an IDE to compile, load, save, and debug a C/C++ program
4	B.Sc (Data SCIENCE)	Problem Solving and Python Programming	DSC - B	4T + 3P	4	<ul style="list-style-type: none"> • Develop algorithmic solutions to simple computational problems.

						<ul style="list-style-type: none"> • Demonstrate programs using simple Python statements and expressions. • Explain control flow and functions concept in Python for solving problems. • Use Python data structures – lists, tuples & dictionaries for representing compound data. • Explain files, exception, modules and packages in Python for solving problems.
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SECOND YEAR

SEMESTER III

S.NO	PROGRAMME	TITLE	COURSE CODE	HOURS PER WEEK	CREDITS	OUTCOME
1	B.Com(CA)	Relational Database Management System	DSC303	3T + 4P	5	<ul style="list-style-type: none"> • Students get practical knowledge on designing and creating database. • Understand various queries execution such as relational constraints, joins, set operations, aggregate functions, trigger, views and embedded SQL. • Use of various software to design and build ER Diagrams, UML, Flow chart for related database systems. • Students will be able to design and implement database applications • <i>apply</i> and <i>relate</i> the concept of transaction, concurrency control and recovery in database. • recovery system and be familiar with introduction to web database, distribute databases, data warehousing and mining.

2	B.Sc(CS)	Data Structures using C++	DSC - III	4T + 3P	5	<ul style="list-style-type: none"> • Explain the features of C++ using object oriented programming. • Describe the relative merits of C++ as an object oriented programming language. • Describe the major object-oriented concepts to implement object oriented programs in C++ Using encapsulation and inheritance. • Describe the major object-oriented concepts to implement object oriented programs in C++ Using polymorphism. • Explain the advanced features of C++ specifically stream I/O, templates and operator overloading. •
3	B.A & B.Sc(CA)	Relational Data Base Management Systems (RDBMS)	DSC - III	4T + 3P	5	<ul style="list-style-type: none"> • Students get practical knowledge on designing and creating database. • Understand various queries execution such as relational constraints, joins, set operations, aggregate functions, trigger, views and embedded SQL. • Use of various software to design and build ER Diagrams, UML, Flow chart for related database systems. • Students will be able to design and implement database applications • <i>apply</i> and <i>relate</i> the concept of transaction, concurrency control and recovery in database. • recovery system and be familiar with introduction to web database, distribute databases, data warehousing and mining.
4	B.Sc (Data SCIENCE)	Data Engineering with Python	DSC - C	4T + 3P	4	<ul style="list-style-type: none"> • Demonstrate your Skills in Python - the language of choice for Data Engineering.

						<ul style="list-style-type: none"> • Implement Web scraping, and use APIs to extract data in Python. • Play the role of a Data Engineer working on a real project to extract, transform and load data using Jupiter notebook and Watson Studio.
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SEMESTER IV

S.N O	PROGRAMME	TITLE	COURS E CODE	HOURS PER WEEK	CREDIT S	OUTCOME
1	B.Com(CA)	Web Technologies	DSC403	3T + 4P	5	<ul style="list-style-type: none"> • Explain the history of the internet and related internet concepts that are vital in understanding web development. • Discuss the insights of internet programming and implement complete application over the web. • Demonstrate the important HTML tags for designing static pages and separate design from content using Cascading Style sheet. • Utilize the concepts of JavaScript and Java Use web application development software tools i.e. Ajax, PHP and XML etc. and identify the environments currently available on the market to design web sites •
2	B.Sc(CS)	Data Base Management Systems (DBMS)	DSC - IV	4T + 3P	5	<ul style="list-style-type: none"> • Describe the fundamentals of File processing and database processing system. • Explain the various data model and its application. • Explain the various normal forms and its role in DBMS.

						<ul style="list-style-type: none"> • Explain the fundamental concepts of SQL programs. • Describe the concepts of function, procedure, package, trigger and exception handling.
3	B.A & B.Sc(CA)	Multimedia Systems	DSC - IV	4T + 3P	5	<ul style="list-style-type: none"> • Create a well-designed, interactive Web site with respect to current standards and practices • Demonstrate in-depth knowledge in an industry-standard multimedia development tool and its associated scripting language • Determine the appropriate use of interactive verses standalone Web applications • Create time-based and interactive multimedia components • Identify issues and obstacles encountered by Web authors in deploying Web-based applications
4	B.Sc (Data SCIENCE)	Machine Learning	DSC - D	4T + 3P	4	<ul style="list-style-type: none"> ▪ Develop an appreciation for what is involved in Learning models from data ▪ Understand a wide variety of learning algorithms ▪ Understand how to evaluate models generated from data ▪ Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models

THIRD YEAR**SEMESTER V**

S.NO	PROGRAMME	TITLE	COURSE CODE	HOURS PER WEEK	CREDITS	OUTCOME
1	B.Com(CA)	Management Information System	DSC503	3T + 4P	5	<ul style="list-style-type: none">• describe managing the digital firm• interpret information systems in the enterprise• explain relationships between concepts of information systems, organization, management and strategy• debate infrastructure of information technology illustrate redesigning the organization with information systems
2	B.Sc(CS)	Programming in JAVA	DSC - V	4T + 3P	5	<ul style="list-style-type: none">• Use the syntax and semantics of java programming language and basic concepts of OOP.• Develop reusable programs using the concepts of inheritance, polymorphism, interfaces and packages.• Apply the concepts of Multithreading and Exception handling to develop efficient and error free codes.• Design event driven GUI and web related applications which mimic the real word scenarios.
3	B.A & B.Sc(CA)	Programming in JAVA	DSC - V	4T + 3P	5	<ul style="list-style-type: none">• Use the syntax and semantics of java programming language and basic concepts of OOP.

						<ul style="list-style-type: none"> • Develop reusable programs using the concepts of inheritance, polymorphism, interfaces and packages. • Apply the concepts of Multithreading and Exception handling to develop efficient and error free codes. <p>Design event driven GUI and web related applications which mimic the real word scenarios.</p>
4	B.Sc (Data SCIENCE)	Natural Language Processing	PAPER VI – A DSE - A	4T + 3P	4	<ul style="list-style-type: none"> • Understand Natural Language Processing. • Probabilistic model of defining language and techniques.(Application) • Applying Hidden Markov model and Speech Recognition.(Application) • Application of context free grammar and language parsing.(Application) • Implement probabilistic and language parsing.(Application) • Differentiation of semantic and discourse in terms of NLP.(Analyse)
5	B.Sc (Data SCIENCE)	No SQL Data Bases	PAPER VI – A DSE - B	4T + 3P	4	<ul style="list-style-type: none"> • Define, compare and use the four types of NoSQL Databases (Document-oriented, Key Value Pairs, Column-oriented and Graph). • Demonstrate an understanding of the detailed architecture, define objects, load data, query data and performance tune Column-oriented NoSQL databases. • Explain the detailed architecture, define objects, load data, query data and

						<p>performance tune Document-oriented NoSQL databases.</p> <ul style="list-style-type: none"> • Demonstrate an understanding of the detailed architecture, define objects, load data, query data and performance tune Key-Value Pair NoSQL databases. • Explain the detailed architecture, define objects, load data, query data and performance tune Graph NoSQL databases. • Evaluate NoSQL database development tools and programming languages. • Perform hands-on NoSql database lab assignments that will allow students to use the four NoSQL database types via products such as Cassandra, Hadoop Hbase, MongoDB, Neo4J and Riak.
6	R-16 B.Sc(CS)	Python Programming	DSC - V	4T +2P	5	<ul style="list-style-type: none"> • Define and demonstrate the use of built-in data structures “lists” and “dictionary”. • Design and implement a program to solve a real world problem. • Design and implement GUI application and how to handle exceptions and files. • Make database connectivity in python programming language.
7	R-16 B.Sc(CS)	Operating Systems	DSC - VI	4T +2P	5	<ul style="list-style-type: none"> • Describe the basic components of an operating system and their role in implementations for general purpose, real-time and embedded applications.

						<ul style="list-style-type: none"> • Define the concepts of processes, threads, asynchronous signals and competitive system resource allocation. • Explain what multi-tasking is and outline standard scheduling algorithms for Multi-tasking. • Discuss mutual exclusion principles and their use in concurrent programming including semaphore construction and resource allocation. <p>Expose the details of major operating system concepts, overview of system memory management and the implementation of file systems.</p>
8	R-16 B.Sc(CA)	Programming with C++	DSC - V	4T + 2P	5	<ul style="list-style-type: none"> • Demonstrate an understanding of algorithms in the problem-solving process. • Identify the necessary properties of good problem-solving techniques. • Create and analyse algorithms for solving simple problems. • Use incremental program development to create, test, and debug algorithms for solving simple problems. • To describe the advantages of a high level language like C/C++, the programming process, and the compilation process • To describe and use software tools in the programming process • Describe the functions of an IDE

9	R-16 B.Sc(CA)	Operating Systems	DSC – VI	4T + 2P	5	<ul style="list-style-type: none"> • Describe the basic components of an operating system and their role in implementations for general purpose, real-time and embedded applications. • Define the concepts of processes, threads, asynchronous signals and competitive system resource allocation. • Explain what multi-tasking is and outline standard scheduling algorithms for Multi-tasking. • Discuss mutual exclusion principles and their use in concurrent programming including semaphore construction and resource allocation. • Expose the details of major operating system concepts, overview of system memory management and the implementation of file systems.
10	R-16 B.Com(CA)	Objective Oriented Programming with C++	BCO506 DSE-1E	3T + 4P	5	<ul style="list-style-type: none"> • Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects. • Understand dynamic memory management techniques using pointers, constructors, destructors, etc • Describe the concept of function overloading, operator overloading, virtual functions and polymorphism. • Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.

						<ul style="list-style-type: none"> • Demonstrate the use of various OOPs concepts with the help of programs
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SEMESTER VI

S.NO	PROGRAMME	TITLE	COURSE CODE	HOURS PER WEEK	CREDITS	OUTCOME
1	B.Com(CA)	Multimedia Systems	DSC603	3T + 4P	5	<ul style="list-style-type: none"> • Create a well-designed, interactive Web site with respect to current standards and practices • Demonstrate in-depth knowledge in an industry-standard multimedia development tool and its associated scripting language • Determine the appropriate use of interactive verses standalone Web applications • Create time-based and interactive multimedia components Identify issues and obstacles encountered by Web authors in deploying Web-based applications
2	B.Sc(CS)	Web Technologies	DSC - VI	4T + 3P	5	<ul style="list-style-type: none"> • Explain the history of the internet and related internet concepts that are vital in understanding web development. • Discuss the insights of internet programming and implement complete application over the web. • Demonstrate the important HTML tags for designing static pages and

						<p>separate design from content using Cascading Style sheet.</p> <ul style="list-style-type: none"> • Utilize the concepts of JavaScript and Java • Use web application development software tools i.e. Ajax, PHP and XML etc. and identify the environments currently available on the market to design web sites.
3	B.A & B.Sc(CA)	Web Technologies	DSC - VI	4T + 3P	5	<ul style="list-style-type: none"> • Explain the history of the internet and related internet concepts that are vital in understanding web development. • Discuss the insights of internet programming and implement complete application over the web. • Demonstrate the important HTML tags for designing static pages and separate design from content using Cascading Style sheet. • Utilize the concepts of JavaScript and Java <p>Use web application development software tools i.e. Ajax, PHP and XML etc. and identify the environments currently available on the market to design web sites.</p>
4	B.Sc (Data SCIENCE)	Big Data	PAPER VII – A DSE - A	4T + 3P	4	<ul style="list-style-type: none"> • Understand the Big Data Platform and its Use cases • Provide an overview of Apache Hadoop • Provide HDFS Concepts and Interfacing with HDFS

						<ul style="list-style-type: none"> • Understand Map Reduce Jobs • Provide hands on Hadoop Eco System • Apply analytics on Structured, Unstructured Data. • Exposure to Data Analytics with R.
5	B.Sc (Data SCIENCE)	Deep Learning	PAPER VII – B DSE - B	4T + 3P	4	<ul style="list-style-type: none"> ▪ Develop an appreciation for what is involved in Learning models from data ▪ Understand a wide variety of learning algorithms ▪ Understand how to evaluate models generated from data ▪ Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models
6	R-16 B.SC(CS)	Software Engineering	DSC - VII	4T + 2P	5	<ul style="list-style-type: none"> • Basic knowledge and understanding of the analysis and design of complex systems. • Ability to apply software engineering principles and techniques. • Ability to develop, maintain and evaluate large-scale software systems. • To produce efficient, reliable, robust and cost-effective software solutions. • Ability to perform independent research and analysis. • To manage time, processes and resources effectively by prioritising competing demands to achieve

7	R-16 B.Sc(CS)	VB.Net	DSC - VIII	4T + 2P	5	<ul style="list-style-type: none"> • Design, formulate, and construct applications with VB.NET. • Integrate variables and constants into calculations applying VB.NET. • Determine logical alternatives with VB.NET decision structures. • Implement lists and loops with VB.NET controls and iteration. • Separate operations into appropriate VB.NET procedures and functions • Assemble multiple forms, modules, and menus into working VB.NET solutions • Create VB.NET programs using multiple array techniques • Build integrated VB.NET solutions using files and structures with printing capabilities • Translate general requirements into data-related solutions using database concepts
8	R-16 B.Sc(CA)	Computer Networking	DSC – VII	4T + 2P	5	<ul style="list-style-type: none"> • Explain the local, metropolitan and wide area networks using the Standard OSI reference model. • Discussion of various networking technologies. • Explain the concepts of protocols, network interfaces and design of performance issues in local area networks and wide area networks. • Describe about wireless networking concepts, contemporary issues in

						<p>networking technologies, network tools and network programming.</p> <ul style="list-style-type: none"> • Explain the analysis of different types of protocol and the comparison of number of data link, network and transport layer protocols.
9	R-16 B.Sc(CA)	VB	DSC - VIII	4T + 2P	5	<ul style="list-style-type: none"> • Explain the basic Concepts of Program building block control statements and the basic concepts of function and procedure. • Describe the functionality and properties of GUI based ActiveX Control with example programs • 10 Discuss about graphics handling related control and properties. • Discuss about the fundamental functions and properties of Advanced ActiveX Control. • Describe the concepts of database handling using DAO, ADO and RDO control with data report concepts.
10	R-16 B.Com(CA)	E- Commerce	BCO607 DSE-1E	3T + 4P	5	<ul style="list-style-type: none"> • Explain the concept of ecommerce and its revolution. • Explain the infrastructure of the Internet and how the various elements contribute to the marketing distribution solutions. • Explain and develop solutions for implementing an ecommerce site. • Discuss security and ecommerce and the ramifications of neglecting it.

						<ul style="list-style-type: none"> • Create a marketing plan and promotional plan for an ecommerce site. • Evaluate a payment system for a site. • Create a strategy for the different, non-traditional areas surrounding ecommerce. • Implement, in simulation or authentically, an ecommerce site.
11	R-16 B.Com(CA)	Management Information System	BCO608 DSE-2E	5T	5	<ul style="list-style-type: none"> • describe managing the digital firm • interpret information systems in the enterprise • explain relationships between concepts of information systems, organization, management and strategy • debate infrastructure of information technology • illustrate redesigning the organization with information systems

PROGRAMME OUTCOMES (PO)

Our learning outcomes are statements that describe skills that we expect to enable our student to attain by the time of graduation.

B. Sc (Computer Science) Learning Outcomes:

1. Learn how to organize information efficiently in the forms of outlines, charts, etc. by using appropriate software. Develop the skills to present ideas effectively and efficiently.
2. Do Academic and Professional Presentations - Designing and delivering an effective presentation and developing the various IT skills to the electronic databases.
3. Use the Systems Analysis Design paradigm to critically analyse a problem. Solve the problems (programming networking database and Web design) in the Information Technology environment. Function effectively on teams to accomplish a common goal and demonstrate professional behaviour.
4. Develop IT-oriented security issues and protocols. Design and implement a web page. Improve communication and business management skills, especially in providing technical support. Serve as the System Administrators with thorough knowledge of DBMS.

B. Com (Computer Applications) Learning Outcomes:

- Demonstrate a basic understanding of computer hardware and software.
- Demonstrate problem-solving skills.
- Apply logical skills to programming in a variety of languages.
- Utilize web technologies.
- Present conclusions effectively, orally, and in writing.

- Demonstrate basic understanding of network principles.
- Working effectively in teams
- Apply the skills that are the focus of this program to business scenarios.

B. Sc (Data Science) Learning Outcomes:

- Apply mathematical principles to the analysis of data
- Analyse very large data sets in the context of real-world problems
- Develop and implement data analysis strategies based on theoretical principles, ethical considerations, and detailed knowledge of the underlying data
- Demonstrate an ability to articulate, assess and apply appropriate theories and principles of information management
- Demonstrate presentation proficiency for written, oral and visual communications in the context of traditional and digital forms of communication
- Demonstrate knowledge of the underlying principles and evaluation methods for analysing information for financial decision-making, investing capital, budgeting and forecasting
- Demonstrate an understanding of the interdisciplinary nature of data, information and communications and its influence on incremental and disruptive innovation
- Demonstrate an understanding of appropriate research methods used to collect and analyze data for decision-making and communications; inclusive of traditional and digital forms of communication
- Demonstrate an understanding of cultural and global perspectives as they apply to all forms of enterprise, the management of information, and communications with a wide range of stakeholders
- Articulate and evaluate appropriate legal and ethical standards pertaining to all forms of communications and network security

PROGRAM SPECIFIC OUTCOMES (PSO)

- Apply standard software engineering process and strategies in software project development using open source programming environment to deliver a quality product for business success.
- Acquaintance with latest trends in technological development and thereby innovate new ideas and solutions to existing problems.
- Conceptual grounding in computer usage as well as its practical business applications.
- To demonstrate advanced skills in the effective analysis design and realization of business system utilizing contemporary information technology.
- Apply fundamental principles and methods of Computer Science to a wide range of applications.
- Design, correctly implement and document solutions to significant computational problems.
- Impart an understanding of the basics of our discipline.
- Prepare for continued professional development.
- Develop proficiency in the practice of computing

Programme outcomes Bachelor of Arts

The B.A. programme in the college is recognised by satavahana university and follows the syllabus prescribed by the university. Our students are allowed to choose from any three subjects from the cluster of History, Economics Political science. B.A. programme in our college meets the standards prescribed by general humanities education. Some learning outcomes include:

Cognitive skills: Students choosing combination of three subjects develop social, political, historic, economic and literary consciousness and will be better able to appreciate different civilization culture. In three year duration, they will cultivate the sensibility to discern the evolution of civilization and culture. They will also be up to date with contemporary developments and develop a sociological sensibility to critically understand the social phenomenon that affects their lives. Students also learn to two languages along with their three major subjects. At the end of the programme they usually will have advanced reading, writing, speaking interpretative and composition skills in both languages.

Employability: On graduating the students will be eligible for employment in the tourism, hospitality and other industries. Students also become employable in non governmental organisations. Their skills in comprehension of general social phenomena around them places them ideal situation for such jobs. They will all also be able to appear to competitive examinations.

Values: Humanities education is designed in such a way that it lays particular emphasis on human values. Students on completion of the ungraduate degree will be better able to appreciate the literary and cultural diversity. It equips them to think critically about the issues of contemporary relevance just hold informed opinion on them.

B.A First Year Semester-1

Title Of Paper: Micro Economics

Credits-5

Hours:60

Course code:114-BA-E/T

Course Objectives: To introduce the cardinal And ordinals approach for understanding the consumer behavior

2) To teach the concept and theory of production analysis.

3) To teach students concept of cost and revenue and derivation of cost curve in the short run and long run period.

4) To understand the competitive market their equilibrium and concept of consumer and producers surplus and economic efficiency.

COURSE OUTCOME

- 1) Students understand the concept of utility analysis and consumer equilibrium with the help of indifference curve and price line.
- 2) Students learn the various concepts and types of production functions and procedures equilibrium.
- 3) Students learn the concepts calculation and derivation of cost in different markets.
- 4) Students understand the features and short run and long run equilibrium under perfect competition and also learn about how an economy attains economic efficiency.

Semester-2

Macro Economics

Credits-5

Hours:60

Course code :214 B.A E/M-T/M

COURSE OBJECTIVES

To introduce the concepts of macro economics to teach the students the theories of income and employment. Investment theories of interest rate .

2) To introduce the concept of money supply and quantity theories of money the concept of implementation trade cycle.

COURSE OUTCOMES

Students understand the concept of macro economics and analysis of national income. Students understand the theories of income and employment.

2) Students learn the concept on Investment and MEC theories of interest.

3) Students understand the concept of money supply determinants and constitution of money supply. Students learn the concept of implementation, effect of implementation measures to control of implementation.

Semester-3

Statistics for economics

Credits-5

Hours:60

Course code:B.A 314 T/M -E/M

COURSE OBJECTIVES

Objectives of statistical analysis defining the type and quantity of data need to be collected and organized, summarizing the data analyzing the data and conclusions and drawing conclusions from it.

2) Assessing the strength of the conclusion and evaluation their un certainty.

COURSE OUTCOMES

A depth knowledge in analysis are statistics students will formulate complete conscice and correct mathematical proofs.

2)Students will frame the problems using multiple mathematical and statistical representation of relevant structures and relationship and solve using standard techniques.

Semester-4

Indian Economy

Credit-5

Hours:60

Course code-414 B.A E/M-T/M

COURSE OBJECTIVES

To introduce the Indian Economy at the time of independence changes in the composition of national income and employment and natural resources.

COURSE OUTCOMES

Developed ideas of the basic characteristics of Indian Economy its potential on natural resources understand the importance causes and impact population and its distribution translate and relative them with economic development.

Semester-5

Public Economics

Credit-5

Hours:60

Course code:514-B.A T/M=E/M

COURSE OBJECTIVES

To understand the public Economics of government expenditure and taxation to analyze public goods externalities and information asymmetries markets failures resulting from these conditions and policies to address those market failures taxation and expenditure.

COURSE OUTCOMES

On successful completion of this course students will be able to demonstrate a good understanding of the fiscal framework for taxing and spending and fiscal policy principles.

2) Analyze critically tax reforms and policy choices in developed and developing countries.

3) Research and examine key issues and challenges in fiscal policy in a particular development area country context.

4) Present in depth return analysis of key issues and challenges in fiscal policy in particular development area country context.

Semester-6

Development Economics

Credit-5

Hours:60

Course code:614b B.A T/M-E/M

COURSE OBJECTIVES

To teach students concept of Economic Growth and development.

2) To teach students the structural issues in development process with development theories and growth models.

3) To teach the role of technology and infrastructure in Economic development and the type of technical progress.

COURSE OUTCOMES

Students learn the concept of HDI GDI.

2) Students learn various classical and neo classical development theories and the role education and health and nutrition in Economic development.

3) Students understand the importance types issues of technology and infrastructure in Economic development.

हिन्दी विभाग

पाठ्यक्रम परिणाम

शासकीय डिग्री कलाशाला महिला करीमनगर का हिन्दी विभाग हमेशा छात्रों के 'पर्याप्त' विकास के लिए प्रतिबद्ध रहा है। हिन्दी विभाग के अंतर्गत कलाशाला में स्नातक एवं स्नातकोत्तर पाठ्यक्रम उपलब्ध हैं, जिनका उद्देश्य छात्रों के बीच साहित्य, इतिहास और समाज के तौर-तरीकों को आगे बढ़ाना है। इसके अलावा, हिन्दी पाठ्यक्रम ने भी छात्रों के बहुमुखी विकास में योगदान दिया है।

प्रथम वर्ष

प्रथम सेमेस्टर (SEMESTER-I)

शीर्षक (Title of the Paper)	गद्य दर्पण, कथा सिंधु, व्याकरण
Course code	S/UG 103/H
Credits	4
Total Hours	60

पाठ्यक्रम पूरा होने पर, छात्र सक्षम होंगे:

CO1: व्यक्तियों का चरित्र चित्रण, सामाजिक परिस्थितियाँ, राष्ट्र का स्वरूप सीखना

CO2: प्रख्यात भारतीय हिन्दी लेखकों की कहानियाँ उनके विभिन्न विचारों और अभिव्यक्ति की शैली को समझना

CO3: लिंग, वचन, कारक, काल, वाच्य, वाक्यों की शुद्धि करना, आधिकारिक हिन्दी, प्रशासनिक शब्दावली, हिन्दी शब्दों का अंग्रेजी भाषा में और अंग्रेजी शब्दों का हिन्दी भाषा में अनुवाद करना।

द्वितीय सेमेस्टर (SEMESTER-II)

शीर्षक (Title of the Paper)	गद्य दर्पण, कथा सिंधु, व्याकरण
Course code	S/UG 203/H
Credits	4
Total Hours	60

CO1: धरती का स्वर्ण, ताई, राजनीति का बँटवारा, स्वामी विवेकानंद, पाठों से जीवन दर्शन के साथ-साथ महान भारतीय लेखकों के साहित्यिक कार्यों को समझना

CO2: हिन्दी के महान कहानी कारों की कथाओं के द्वारा मध्यवर्गीय परिवार की समस्याएँ जीवन की मूल्य सीख सकते हैं।

CO3: हिन्दी व्याकरण को समझने के लिए जो छात्रों को रचनात्मक लेखक बनने में मदद करता है और साथ ही वे बिना किसी गलती के हिंदी भाषा बोलेंगे और लिखेंगे। संधि विच्छेद, विलोम शब्द, पत्र लेखन - व्यक्तिगत पत्र, आधिकारिक पत्र, शिकायत पत्र, आवेदन पत्र।

तृतीया सेमिस्टर (SEMESTER-III)

शीर्षक (Title of the Paper)	काव्य निधि, हिन्दी साहित्य का इतिहास, सामान्य निबंध और अनुवाद
Course code	S/UG 303/H
Credits	3
Total Hours	45

CO1: कबीर के दोहे, तुलसी के दोहे, नव युवकों से, फूल और काँटा, मेरा नया बचपन दोहे और कविताओं से जीवन के मूल्यों को समझना।

CO2: आदि काल, भक्ति काल के द्वारा संक्षिप्त अध्ययन, निम्नलिखित लेखकों और कवियों का संक्षिप्त अध्ययन:

चांद बरदाई, सूर दास, तुलसी दास, सुमित्रानंदन पंत, भारतेन्दु हरिश्चंद्र, मैथिली शरण गुप्त, रामधारी सिंह 'दिनकर'।

CO3: निबंध लिखने का कौशल विकसित करने के लिए, समसामयिक विषयों और साहित्य पर अधिक ज्ञान प्राप्त करने और निबंध लिखने का तरीका जानने में सक्षम होने के लिए।

चौथी सेमिस्टर (SEMESTER-IV)

शीर्षक (Title of the Paper)	काव्य निधि, हिन्दी साहित्य का इतिहास, सामान्य निबंध और अनुवाद
Course code	S/UG 403/H
Credits	3
Total Hours	45

CO1: रहीम के दोहे, बिहारी के दोहे, भगवान बुद्ध के प्रति, कलम और तलवार, तू क्यों बैट गया हैं पत पर पाठ्य क्रमों से ज्ञान, धैर्य, मानो वैज्ञानिकता के साथ-साथ विभिन्न कवियों के साहित्य को समझना।

CO2: रीति-काल, आधुनिक-काल का अध्ययन से हिन्दी साहित्य की बढोत्तरी, साहित्य ज्ञान, प्राप्त होता है। प्रमुख रचना कारों का परिचय से जीवन मूल्य एवं हिन्दी साहित्य की महिमा समझ सकते हैं। भारतेन्दु युग, द्विवेदी युग, छाया वाद, प्रगतिवाद, प्रयोग वाद, हिन्दी गद्य का विकास, हिन्दी कहानी, उपन्यास और नाटक अध्ययन करने के लिए।

CO3: समसामयिक विषयों और साहित्य पर अधिक ज्ञान प्राप्त करने और निबंध लिखने का तरीका जानने में सक्षम होना। हिंदी भाषा की समझ का अध्ययन करना।



COURSE OUTCOMES

B. A HISTORY

SEM-I History of India [From Earliest Time to 700

Syllabus [Module wise]	OBJECTIVES	OUTCOME
Module-I	To acquaint the students with different sources of ancient Indian History	After the completion of this unit, student must be able to understand Archaeological, literary and Foreign Travellers sources
Module - II	To enable the students to understand Indus valley civilization and its evidences and understand the Vedic Age	After the completion of this unit, student must be able to understand socio - eco - religious life Students must be able to understand town planning and decline of the civilization
Module-III	To make students aware of the developments in India after 6th Century B.C.	After the completion of this unit, student must be able to understand the administrative structure of Mahajanapadas Students must be able to understand Rise and decline of Jainism and Buddhism Students must be able to understand foreign invasions
Module-IV	To make students aware of the Significance of Mauryan and post Mauryan dynasties	After the completion of this unit, student must be able to understand the expansion and policies under the Mauryan kings. Student must be able to understand the administration under the Maurya's. Student must be able to understand the role of post Mauryan dynasties
Module-V	To make students aware about the contributions in the Gupta age and the Post Gupta events in North India	After the completion of this unit, student must be able to understand the expansion under the Gupta kings, administrative structure of Gupta period. Student must be able to understand the concept of classical age under the Guptas. The campaigns of Harsha and its administration.

SEM-II History of India [c. 700 – 1526CE]

Syllabus [Module wise]	OBJECTIVES	OUTCOME
Module-I	To make student aware of the various dynasties and culture of Deccan and South India	After the completion of this unit, student must be able to understand the powers of Chalukyas , Rashtrakutas, Pallavas, Cholas Student must be able to understand the culture spread in South India.
Module - II	To make students aware of the foundation, Expansion and decline of Delhi Sultanate and	After the completion of this unit, student must be able to understand the socio- eco and political conditions before Turkish invasion Student must be able to understand the rise and fall of various dynasties in Delhi Sultanate and Delhi Sultanates administrative system and socio, economic and cultural conditions.
Module-III	To make students aware of the Bhakti and Sufi movements.	Analyses factors which led to the emergence of new religious ideas and movements (bhakti and Sufi)
Module-IV	To make students aware of the Deccan powers like Kakatiya dynasty and its socio-economics and cultural condition.	After the completion of this unit, student must be able to understand the rise, growth and decline of Kakatiya dynasty. Student must be able to understand the administration, socio-eco and cultural conditions in the Deccan states
Module-V	To make students aware of the Deccan powers like Vijayanagar kingdom it its socio- economics and cultural condition.	After the completion of this unit, student must be able to understand the rise, growth and decline of Vijayanagar kingdom. Student must be able to understand the administration, socio-eco and cultural conditions in the Deccan state.

SEM-III History of India [1526 – 1857 CE]

Syllabus [Module wise]	OBJECTIVES	OUTCOME
Module-I	To make students aware of the political events, administration system, social, economic and cultural conditions during the Mughal period.	After the completion of this unit, student must be able to understand beginning, expansion and decline of the Mughal rule, socio- economic, Cultural, religious and Educational life during the Mughal period.
Module - II	To acquaint students to study the rise of the Maratha Power	After the completion of this unit, student must be able to understand role of Shivaji in foundation of Swaraj Students must be able to understand role of Sambhaji, Rajaram and Tarabai
Module-III	To make students aware of the expansion and consolidation of British power in India	After the completion of this unit, student must be able to understand Karnataka's wars, subsidiary alliance and doctrine of laps.
Module-IV	To make students aware about revenue settlements of east India company and its agrarian policies.	After the completion of this unit, student must be able to understand the revenue settlements, famine and agrarian policies.
Module-V	To make the student aware of the events between revolt of 1857.	After the completion of this unit, the student must be able to know what were the causes and consequences of the revolt of 1857

SEM-IV History of India [1858 – 1964 CE]

Syllabus [Module wise]	OBJECTIVES	OUTCOME
Module-I	To make students aware of the Education, press and Transport in British period.	After the completion of this unit, the student must be able to understand the education system and its importance to understand development of Press, Means of Transport and Communication.
Module - II	To make students aware of socio religious reform movements: - Reforms and Revival.	After the completion of this unit, the student must be able to understand various reforms movements of the Indian society and also it's impact
Module-III	To make student aware regarding moderates and extremist politics and the growth of nationalism.	After the completion of this unit, the student must be able to know the leaders of the moderate politics , its role , objectives and work in the growth of Indian National Movement Student must be able to know the leaders of the Extremist politics , its role, objectives and work in the growth of Indian National Movement Student must be able to understand.
Module-IV	To make student aware about the revolutionary movements.	After the completion of this unit, the student must be able to understand revolutionary movements in different parts of India and their significance
Module-V	To make students aware about the events that led to partition. To acquaint students with the developments during Nehru era (1947 – 1964 CE)	After the completion of this unit, the student must be able to understand act of 1935, Cripps mission, cabinet mission and Mountbatten plan Student must able to understand independence and partition of India. And the process of making the constitution and the integration of states and policies of Nehru.

SEM-V History of the Modern world (From 1453 CE – 1964 CE)

Syllabus [Module wise]	OBJECTIVES	OUTCOME
Module-I	To make students aware of Renaissance, Geographical Discoveries and reformation.	After the completion of this unit, student must be able to understand the contribution and spread of renaissance movement to different parts of Europe Students must be able to understand geographical discoveries by eminent voyagers Students must be able to understand the reformation process, role of Martin Luther and protestants vs Catholicism.
Module - II	To make students aware of different revolutions.	After the completion of this unit, student must be able to understand the causes, course and consequences of Glorious revolution, American revolution, French revolution and Industrial revolution in Europe.
Module-III	To make students aware of the circumstances that led to the rise of nationalist movements in Asia	After the completion of this unit, student must be able to understand the nationalist movements in China, India and Japan.
Module-IV	To make students aware of the transition phase in Europe (1914-1918). To make students aware of the powerful personalities who ruled as a dictator	After the completion of this unit, student must be able to understand the causes, course and consequences of world war I Students must be able to understand the Russian revolution and the role of Lenin Students must be able to understand the formation, organisation and works done by League of Nations. student must be able to understand the role of Mussolini in creating a fascist state in Italy Students must be able to understand the rise of Nazism in Germany under the dictatorship of Hitler Students must be able to understand the Militarism in Japan
Module-V	To make students aware of the development that led to disastrous consequences for Europe in particular	After the completion of this unit, student must be able to understand the causes, spread and the consequences of the World War II. Student must be able to understand the Atlantic charter and formation of U.N.O. for world peace and NAM

SEM-VI History and Culture of Telangana (From Earliest times to 2014)

Syllabus [Module wise]	OBJECTIVES	OUTCOME
Module-I	To make students aware of pre-history of Telangana, Satavahana and post Satvahanas social economic and cultural conditions. To make students aware of Qutub shahi dynasty.	After the completion of this unit, student must be able to understand Satavahana and post Satvahanas social economic and cultural conditions. And total awareness of Qutub Shahi's social, economic and cultural conditions.
Module - II	To make students aware of Nizams of Hyderabad state and his policies for modernisation.	After the completion of this unit, student must be able to understand Hyderabad nizams roles and they policies for modernisation of Hyderabad state' complete knowledge of political awaking in Telangana.
Module-III	To make students aware of political development in Hyderabad state (1900 – 1942)	After the completion of this unit, student must be able to understand Andhra maha sabha, Hyderabad state congress, vande mataram movement, Mulki movement. And role of women in Hyderabad freedom movement.
Module-IV	To make students aware of Anti-Nizam and Anti-Feudal Movements	After the completion of this unit, student must be able to understand Telangana Peasants Armed Struggle - Adivasis Revolt - Kumaram Bheem - Razakars and their Activities - Police Action - Formation of Popular Ministry under Burgula Rama Krishna Rao - Assertion of Mulki Identity and the City College Incident (1952) - Merger of Telangana and the Formation of Andhra Pradesh, (1956).
Module-V	To make students aware of Discrimination, Dissent and Protest. And the Formation of Telangana State,	After the completion of this unit, student must be able to understand about Telangana - Formation of Various Associations - Telangana Aikya Vedika – Telangana Jana Sabha - Telangana Rashtra Samiti (2001) - Mass Mobilization - Sakala Janula Samme - Millennium March - Sagara Haram, Chalo Assembly - December 2009 Declaration and the Formation of Telangana State, June 2014.

DEPARTMENT OF MATHEMATICS

SUBJECT: MATHEMATICS

COURSE OUTCOME

B.Sc Mathematics course student will be able to understand the depth knowledge of various topics of mathematics such as Algebra, calculus, geometry and several other branches of mathematics. It helps learners in building a solid foundation for higher studies in mathematics. One also gets proficient in logical and analytical reasoning, which in turn, can be utilised in modelling and solving real life problems. The programme will also help students to enhance their employability in various public and private enterprises.

B.Sc PROGRAMME

FIRST YEAR

SEMESTER –I

Title of Paper	Differential & integral calculus
Course code	BS:101
Credits	5
Total Hours	56

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

CO1: Explain the relationship between the derivative of a function as a function and the notion of the derivative as the slope of the tangent line to a function at a point.

CO2: To able to calculate limits in indeterminate form by a repeated use of L' Hospital rule.

SECOND SEMESTER-II

Title of paper	Differential Equations
Course code	BS:201
Credits	5
Total Hours	56

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

CO1: Distinguish between linear, nonlinear, partial and ordinary differential equations.

CO2: Solve basic application problems described by second order linear differential equations with constant coefficient.

SECOND YEAR

SEMESTER-III

Title of paper	Real Analysis
Course code	BS:301
Credits	5
Total Hours	56

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

CO1: Give the essence of the proof of Bolzano-Weierstrass theorem, the contraction theorem as well as existence of convergent subsequence using continuity.

CO2: Evaluate the limits of wide class of real sequences.

CO3: Determine whether or not real series are convergent by comparison with standard series or using the ratio test.

SEMESTER-IV

Title of paper	Algebra
Course code	BS:401
Credits	5
Total Hours	56

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

CO1: Students will be able to determine whether a given group is Abelian by checking the properties.

CO2: Students will be able to describe all elements in a cyclic subgroup by using generators.

CO3: Students will be able to understand the homomorphism by using the relationship between groups.

III YEAR

SEMESTER-V

Title of paper	Linear Algebra
Course code	BS:501
Credits	5
Total Hours	56

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

CO1: understand the combination of two important aspects of modern mathematics via Linear Algebra and Vector Calculus.

CO2: Linear Algebra emphasizes the concept of vector spaces and Linear transformations which are essential in simplifying various scientific problems.

SEMESTER-V

Title of paper	Solid Geometry
Course code	BS:506
Credits	3+2
Total Hours	56

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

CO1: understand the properties of Sphere, cones and cylinder.

CO2: Express the problems geometrically and can solve it.

SEMESTER-VI

Title of paper	Numerical Analysis
Course code	BS:601/A
Credits	5

Total Hours	56
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On completion of this course the students will be able to:

CO1: solve an algebraic or transcendental equation using an appropriate numerical method.

CO2: Able to solve a linear system of equations using an appropriate numerical method.

SEMESTER –VI

Title of paper	Vector Calculus
Course code	BS 606
Credits	3+2
Total Hours	56

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

CO1: students can evaluate line integrals, surface area and surface integrals.

CO2: Students can determine gradients, divergence ,curl and flux of vector fields.

GOVERNMENT DEGREE COLLEGE (W)

KARIMNAGAR

DEPARTMENT OF PHYSICS

SUBJECT: PHYSICS

COURSE OUTCOME

BSc Physics course student will be able to understand the depth knowledge of various topics of physics demonstrate skills and competencies to conduct wide range of specific experiments. Identify their area of interest in academic and R&D. Perform job in various fields.

BSC PROGRAMME

FIRST YEAR

SEMESTER – I

Title of Paper	Mechanics
Course code	BS105
Credits	5
Total Hours	56

On successful completion of the course students have

CO1: Grasped the fundamentals of vector analysis, like gradient Divergence and Curl and different types of Frames of Reference and transformation laws, both Galilean and Lorentz.

CO2: Learned conservation laws of energy and linear angular momentum and apply them to solve problem.

SEMESTER – II

SECOND SEMESTER – II

Title of Paper	Waves and Oscillation
Course code	BS205
Credits	5
Total Hours	48

CO1: Learn the fundamentals of harmonic oscillator model, including damped and forced oscillators and grasp the significance of terms like quality factor and damping coefficient.

CO2: Study the general solution wave motion in general and TM Waves in stretched strings and longitudinal waves.

SECOND YEAR

SEMESTER – III

Title of Paper	Thermodynamics
Course code	BS305
Credits	4+1=5
Total Hours	48

CO1: Become familiar with various thermodynamic process and work done in each process.

CO2: Have a clear understanding about Reversible and Irreversible process and knowing the concept of Entropy.

CO3: Familiarizing in depth weins, Raleigh Jeans and Planck's Theory and statistical distribution of Maxwell boltzmann, Bose Einstien and Fermi Dirac statistics.

SEMESTER – IV

Title of Paper	Optics
Course code	BS405
Credits	4+1
Total Hours	48

CO1: Use the Principles of wave motion and superposition to explain physics of interference, diffraction and polarization.

CO2: Understanding the basics of aberrations like spherical and chromatic and how to rectify them .

III YEAR

SEMESTER –V

PAPER – V

Title of Paper	Electromagnetism
Course code	BS505
Credits	3+1
Total Hours	42

CO1: Have gained elaborated knowledge about electrostatics and laws governing charges, electric potential etc.

PAPER – VI

Title of Paper	Solid State Physics
Course code	BS506
Credits	3 + 1 = 4
Total Hours	42

CO1: In depth knowledge about 14 Bravais lattice, different crystal structure and their applications in various field

CO2: Bragg`s Equation derivation and its importance in deriving the crystal structure and details study of crystal defects.

SEMESTER –VI

PAPER –VII

Title of Paper	Modern Physics
Course code	BS605
Credits	3+1
Total Hours	42

CO1: To Become familiar with Black body radiation ultra violet catastrophe photo electric effect, Compton effect have gained a clear knowledge about wave nature of particles De Broglie waves and implication of uncertainty principle.

CO2: Have gained ideas of Quantum Mechanics and schrodinger equation. Nuclear composition and various nuclear models.
Have a deep knowledge about Radio activity, Nuclear fusion, Fission and Nuclear Reactors.

PAPER – VIII

Title of Paper	Basic electronics
Course code	BS606
Credits	3+1
Total Hours	42

CO1: Have a basic knowledge of Network Theorems and Semi conductor physics.

CO2: Understanding the basics of diode and working of Rectifier circuits Analyze the characteristics of transistor.

CO3: Understanding the fundamentals of Digital Electronics like number systems Boolean Algebra and logic gates.

GOVERNMENT DEGREE COLLEGE (WOMEN)
KARIMNAGAR - TELANGANA
DEPARTMENT OF POLITICAL SCIENCE

PROGRAMME SPECIFIC OUTCOME

SR. NO	PROGRAMME SPECIFIC OUTCOME
PSO 1	Understanding the meaning and importance of Political Theory, political concepts, political theories and political institutions.
PSO 2	Comprehending the essence of Western Political Thought with special reference to Greek Philosophy, Social Contract theory, Utilitarian Thought and the Philosophy of Dialectics.
PSO 3	Broaden the consciousness on Indian Political Thought. A journey through the ancient, medieval and modern Indian Political Thought.
PSO 4	Enlighten on constitutional development, governance and politics of India.
PSO 5	Widening the understanding on Politics of Development with special reference to planning, mixed economy strategy and New Economic Policy.
PSO 6	In-depth understanding of International Relations and Global Politics.
PSO 7	Broad perspective of Power and the significance of Balance of Power and Collective Security. A thorough knowledge on issues of contemporary relevance like Human Rights, Terrorism and Environment

COURSE OUTCOMES:**B. A. POLITICAL SCIENCE****SEM – 1****UNDERSANDING POLITICAL THEORY**

SYLLABUS (UNIT WISE)	OBJECTIVES	OUTCOME
Unit 1	To make the student to understand about Political Theory, its evolution and significance. To explain the students about Normative and Empirical approaches.	Learners will get a vivid understanding about meaning, evolution and significance of Political Theory. A proper insight on Normative and Empirical approaches enable them to understand about values and facts in social science research.
Unit 2	To educate the students about State and Theories of Origin of State. To facilitate the understanding of Power & Authority, Authoritative allocation of Values and Challenges of Sovereign States.	Theories of Origin of State enables the students to understand the significance of Consent, General Will and rational outlook in social life. Learners will understand about importance of legitimacy in use of power and also about allocation of values in society.
Unit 3	To enlighten the learners on certain values like Liberty, Equality and Justice. To enlarge their understanding on Liberal, Marxist and Feminist perspective.	Learners will develop holistic knowledge on Liberty, Equality and Justice . This help them to understand the diverse society. Students will learn about Social Justice . Liberal, Marxist and Feminist Perspectives will broaden their approach on social issues.
Unit 4	To help the learners to acquaint themselves on theories like Liberalism, Nationalism and Multiculturalism.	Learners will develop liberal, scientific and rational outlook on the social issues. Nationalism helps to mould the students as ideal citizens and multiculturalism will pave for a more tolerant society .
Unit 5	To enlighten the students on political institutions like Legislature, Executive and Judiciary. To facilitate them the knowledge of role of Political Parties, Pressure Groups and Media.	Students will learn about the concept of Separation of Powers which is the basis of modern democracies. They learn about the functions and limitations of Organs of Government and Political Parties. The knowledge on Pressure Groups and Media will enable them to become more responsible and participative .

SYLLABUS (UNIT WISE)	OBJECTIVES	OUTCOME
Unit 1	To enable the learners to understand about Greek Political Thought. To explain them the philosophy of Sophists, Socrates, Plato and Aristotle.	‘ Virtue is Knowledge ’ which is the basis of philosophy of Socrates enables the learners to understand the significance of education. Plato’s theory of Justice, Education and Ideal State will expand the frontiers of thinking of the learners. Aristotle’s realistic philosophy will throw light on different form of governments .
Unit 2	To help the students to understand about medieval political thought of Thomas Aquinas and Nicollo Machiavelli. To educate them on the causes and consequences of church – state controversy.	Medieval political thought help the learners to understand the evolution of a secular state from theocratic state. Church –state controversy will help them to understand the origin of modern sovereign states .
Unit 3	To explain the students about Social Contractualists like Thomas Hobbes, John Locke and Rousseau.	The learners will understand about the significance of consent and agreement as the basis of origin of state. Students will learn about different types of sovereignty. Popular Sovereignty which is the basis of modern democracy is the outcome of social contract theory.
Unit 4	To enlighten the students on Utilitarian thought of Jeremy Bentham and J. S. Mill.	The students will understand that the basic function of the state is to provide ‘greatest happiness of greatest number’. They will understand that quality of happiness is more superior than quantity of happiness in social life.
Unit 5	To enrich the students on the Concept of Dialectics of G.W.F. Hegel and Karl Marx.	Students will learn the significance of contradictions to the march towards truth. It will help the learners to understand the stages of history through dialectics. Learners will also understand about the idea of classless and stateless society postulated by Karl Marx.

SYLLABUS (UNIT WISE)	OBJECTIVES	OUTCOME
Unit 1	To enrich the students on State and Society in Ancient India. To enlighten the learners on the insights of Manu, Buddha and Kautilya.	Learners will enrich their knowledge on state and society of ancient India which helps them to understand the rich heritage and culture of India. Philosophy of Buddha inculcates rationalistic outlook , thoughts of Kautilya enlightens on realism and statecraft and Manusmruthi on the social structure of India.
Unit 2	To educate the students on Indian Medieval Political Thought of Basava and Ziauddin Barani.	Students will learn about the transition of Indian society during medieval period. They learn the concepts like Gender Equality and Ideal Polity .
Unit 3	To enlighten the students on Indian Renaissance Political Thought taking the contributions of Raja Ram Mohan Roy and Jyothi Rao Phule.	The learners will understand the significance of change in arts and literature during renaissance movement. They learn the humanism and social mindedness from the works of Raja Ram Mohan Roy and Jyothi Rao Phule.
Unit 4	To teach the students about Reformist Thought of M. G. Gandhi and Dr. B. R. Ambedkar.	The students will learn reformist thoughts that changed the Indian society. They learn that social justice, economic equality, gender equality and democratic decentralization form the basis of successful democracy.
Unit 5	To imbibe the students the knowledge on Socialist Thought of M. N. Roy, Jawaharlal Nehru and R. M. Lohia.	The learners will be enriched on the modern liberal thoughts like Radical Humanism, Democratic Socialism and Social Justice. The philosophy of Humanism make the students more scientific and rational in their outlook. Democratic Socialism will educates the learners on the need for economic and social equality.

SYLLABUS (UNIT WISE)	OBJECTIVES	OUTCOME
Unit 1	To facilitate the students to understand the process of Constitutional Development in India. To educate them on National Movement, Evolution and philosophical foundations of Indian constitution.	The students will learn about the causes and stages of Indian national movement . Government of India Act 1909, 1919, 1935 will help them to learn the evolution of constitutionalism in India. The basic features of Indian constitution will give overall idea and essence about the provisions of the constitution.
Unit 2	To help the students to understand the institutional framework of India. To explain them about the Union and State Governments.	The learners will gain complete knowledge on Legislature, Executive and Judiciary at both Union and State level . They also learn about the functioning of Parliamentary System of government. The ideals like Judicial Review and Judicial Activism will broaden the thinking of students.
Unit 3	To teach the students about the basis of Federal Politics of India. To narrate the Union – State relations and the recent trends in the federal polity.	The students will understand the Legislative, Administrative and Financial Relations between Union and States . This help them to comprehend the Indian Federal Polity when compared to other countries.
Unit 4	To elaborate the learners on Electoral Politics in India. To explain them about National Parties and Regional Parties. Composition and functions of Election Commission of India is also discussed.	The learners will get a vivid understanding of Party System in India and the knowledge of National Parties and Regional Parties . They also will acquaint themselves with the history and objectives of different Political Parties. They learn the importance of Election Commission as a harbinger and guardian of Indian democracy.
Unit 5	To broaden the thinking of students on Issues in Indian Politics like Secularism, Communalism, Caste Polarization, Gender Disparities and Issues of Minorities.	This module will enrich the students on the real life issues of Indian politics. They gain clarity on communalism by majority and minority sections, polarization of society on caste grounds , persisting gender inequalities and the issues of minorities with a special reference to Sachar committee.

SYLLABUS (UNIT WISE)	OBJECTIVES	OUTCOME
Unit 1	To educate the students on the concept of Development, its nature and importance. To enrich their knowledge on Social, Economic and Political Development.	Students could comprehend the difference between progress and development and acquaint themselves about social, political and economic development.
Unit 2	To broaden the understanding of learners on Capitalism, Socialism, Gandhism and Sustainable Development by encouraging development debates.	Development Debates will enable the learners to gauge the model of development through Capitalism and Socialism. They also understand the relevance of Sustainable Development and SDGs by UNO.
Unit 3	To educate the students about State and Development in India. To help them understand about Planning, Mixed Economy and Socialist Pattern of Society. To widen their knowledge on industrial, agricultural and other aspects of development and about land reforms and economic reforms.	The students will understand about the substructure of Indian economy which stood strongly in tough times. They learn about the model of Planning in India, modalities of mixed economy , socialist pattern of society and New Economic Policy . They also enrich their knowledge on development in agricultural and industrial sectors and also about land and economic reforms.
Unit 4	To shed light on Issues of Development in the Post-Economic Reforms period. To help them understand about Liberalization, Globalization and Privatization. They will understand the effects of development on Displacement and Environment	The learners can interpret the issues of development in the Post-Economic Reforms period . They can assess the effects of Liberalization, Globalization and Privatization on Indian economy.

SYLLABUS (UNIT WISE)	OBJECTIVES	OUTCOME
Unit 1	To enlighten the students on the evolution and scope of International Relations. To explain about the Sovereign state system and its characteristics.	Learners will get a broad understanding of international order by studying about international relations. They also learn about the features and significance of sovereign state .
Unit 2	To help the students to understand effects of imperialism on the social, cultural and economic aspects in Asian and African countries. To explain them the causes and consequences of first and second world wars, the causes of Decolonization, Neo-colonialism and the rise of Developing World.	The students can comprehend the consequences of imperialism of European nations in Asia, Africa and Latin America. They get a clarity on the consequences of world wars which help them to understand the causes of backwardness of Third World countries . The topic on Neo-colonialism will wake them to the new trends of imperialism by the Multinational companies.
Unit 3	To narrate the students about the causes and stages of Cold War and Détente. To make them understand the causes of end of cold war, American Hegemony and the recent developments towards emergence of multi-polar world.	The knowledge on cold war will enable the learners to understand the causes of cold war and the consequences of bipolarity . They also will learn about the causes for the disintegration of Soviet Union and the emergence of a unipolar world under the leadership of America. The learners can also foresee the steps towards the emergence of a multipolar world in the near future.
Unit 4	To enable the students to understand the determinants and features of India's Foreign Policy. To enlighten them about the role of Non-alignment movement during cold war period and its relevance during the post-cold war period.	The students will learn about the important features of India's Foreign policy which gave a prestigious place to India in the comity of nations . They also will understand the causes of India adopting the policy of Non-alignment and the role India is playing in the recent times in maintaining international peace .
Unit 5	To explain the students about India's relationship with U.S.A., China, Pakistan, Sri Lanka and Nepal.	The learners perspective and understanding on India's relationship with the only super power i.e U.S.A will be enhanced. They will enrich themselves on the relationship of India with its neighboring countries in

		aspects of not only bilateral issues but also on the issues of trade and commerce.
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SEM – VI (A)

GLOBAL POLITICS

SYLLABUS (UNIT WISE)	OBJECTIVES	OUTCOME
Unit 1	To enhance the knowledge of the learners on the concept of Power, elements of power, the theory of Balance of Power and importance of Soft Power.	The learners will understand the concept of power in international relations. The concept of Balance of Power is relevant not only during the world wars, but it is relevant even today. The topic on elements of power and soft power will enable the students to understand how power influence international relations.
Unit 2	To explain the students about the concept of Security and Collective Security in international relations. To analyze the transition of world politics from multipolarity to bipolarity; and from bipolarity to unipolarity.	The students will understand the relevance of Security in international relations. The learners will learn that Collective Security is a system by which the states have attempted to prevent or stop wars. They also learn the causes for the emergence of bi-polar world and also the reasons for American hegemony.
Unit 3	To enrich the students on the issues like Human Rights, Terrorism and Environment.	This module will broaden the understanding of the students on the concepts that are very relevant like Human Rights, Terrorism and Environment.
Unit 4	To analytically explain the students about World Bank, IMF, UNCTAD, WTO, North-South Dialogue and South-South Co-operation.	The learners will know about the role of World Bank and IMF in regulating the financial aid to the developing countries. They also learn the relevance of North-South Dialogue and South-South Co-operation.
Unit 5	To explain the students about Arms Race, Disarmament, Arms Control, NPT, CTBT, MTCR and WMDs.	This module will help the students to learn the causes for Arms Race and also the conditions that led to Disarmament and Arms Control.

శాతవాహన విశ్వవిద్యాలయం
ప్రభుత్వ మహిళా డిగ్రీ కళాశాల, కలీంనగర్

తెలుగు విభాగము

Telugu Syllabus Outcomes

2020-2021

మొదటి సంవత్సరం

సెమిస్టర్-I

పేపర్ పేరు	తెలుగు
పేపర్ కోడ్	202
క్రెడిట్స్	4
మొత్తం పని గంటలు	50

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలు నేర్చుకోగల్గుతారు.

1. ప్రాచీన కవులయిన నన్నయ, సోమనల జీవిత విశేషాలను, రచనలను గురించి తెలుసుకోవడమే కాక వారి రచనా శైలిని అధ్యయనం చేస్తారు. శకుంతల, గొడగూచి పాత్రల ద్వారా ఉన్నత వ్యక్తిత్వ విలువలు పెంపొందించుకుంటారు.
2. ఆధునిక కవుల గురించి తెలుసుకోవడమే కాకుండా వారి రచనల ద్వారా ప్రేమ, సమానత్వం, సహజీవన సంస్కృతి, ఆత్మవిశ్వాసం మొదలైన విలువలు నేర్చుకుంటారు.
3. ఉపవాచకం ద్వారా అధ్యయన స్థాయి పెంచుకోగలుగుతారు. రుద్రమదేవి పాత్ర ద్వారా నిరుపమాన ధైర్యసాహసాలు విజయం కల్గిస్తాయని, చరిత్ర అధ్యయనం ద్వారా లోటుపాట్లు గ్రహించి చక్కటి భవిష్యత్తు నిర్మించుకోవచ్చని గ్రహిస్తారు.
4. భాషా వ్యాకరణాంశాలపై పట్టు సాధిస్తారు.

సెమిస్టర్-II

పేపర్ పేరు	తెలుగు
పేపర్ కోడ్	202
క్రెడిట్స్	4
మొత్తం పని గంటలు	50

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలు నేర్చుకోగల్గుతారు.

1. ప్రాచీన కవిత్వ విశేషాంశాలను గ్రహించడంతో పాటు విశ్వాసం, పట్టుదల, సహనం, కార్యదీక్ష, దక్షత మొదలైన లక్షణాలు, ఆవశ్యకత గ్రహించి నేర్చుకుంటారు.
2. ఆధునిక కవిత్వ విశేషాలు గ్రహిస్తారు.
3. వచన కవిత్వ ప్రత్యేకతను గ్రహిస్తారు. తెలంగాణా వచన శైలి విలక్షణతను అవగతం చేసుకుంటారు.
4. వ్యాకరణాంశాలపై అవగాహన పెంపొందించుకుంటారు.

రెండవ సంవత్సరం

సెమిస్టర్-III

పేపర్ పేరు	తెలుగు
పేపర్ కోడ్	302
క్రెడిట్స్	3
మొత్తం పని గంటలు	40

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలను నేర్చుకుంటారు.

1. ప్రాచీన పద్య కవిత్వ విశేషాలను గ్రహిస్తారు. వ్యక్తిత్వంలో వాక్చతురత ప్రాధాన్యత, సమయం, విద్యల ప్రాముఖ్యతను గ్రహిస్తారు.
2. ఆధునిక పద్యభాగం ద్వారా ఆధునిక కవుల పద్య రచనా శైలిలోని సారాంశాన్ని గ్రహిస్తారు. బలవంతులుగా మారాలంటే బలమైన వ్యక్తిత్వం అవసరమని గ్రహిస్తారు.
3. అలంకారాలు మనిషి మాటకు ఎంతో వన్నె తెస్తాయని గ్రహిస్తారు.

సెమిస్టర్-IV

పేపర్ పేరు	తెలుగు
పేపర్ కోడ్	402
క్రెడిట్స్	3
మొత్తం పని గంటలు	40

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలను నేర్చుకుంటారు.

1. ప్రాచీన పద్యాల మాధుర్యం గ్రహిస్తారు. అంతేకాకుండా జీవన విలువలైన వినయం, వాక్యాలన ప్రాధాన్యతను భక్తి ఆవశ్యకతను గుర్తిస్తారు.
2. ఆధునిక పద్యభాగ శైలిని గ్రహిస్తారు. మానవత్వం మన మతం కావాలని గుర్తించడంతో పాటు చారిత్రక స్ఫూర్తిని అందిపుచ్చుకోవడంలోని అవసరాన్ని గుర్తిస్తారు.
3. వచన సాహిత్యపు విలక్షణతను ఆకళించుకుంటారు. స్వాతంత్ర్యం వచ్చినప్పటి తెలంగాణా పరిస్థితిని, తెలుగు కథా పరిమళాలను గ్రహిస్తారు.

శాతవాహన విశ్వవిద్యాలయం
ప్రభుత్వ మహిళా డిగ్రీ కళాశాల, కరీంనగర్
తెలుగు విభాగము
Telugu Syllabus Outcomes
2020-2021

మొదటి సంవత్సరం
సెమిస్టర్-I

పేపర్ పేరు	తెలుగు
పేపర్ కోడ్	202
క్రెడిట్స్	4
మొత్తం పని గంటలు	50

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలు నేర్చుకోగలుగుతారు.

1. ప్రాచీన కవులయిన నన్నయ, సోమనల జీవిత విశేషాలను, రచనలను గురించి తెలుసుకోవడమే కాక వారి రచనా శైలిని అధ్యయనం చేస్తారు. శకుంతల, గొడగూచి పాత్రల ద్వారా ఉన్నత వ్యక్తిత్వ విలువలు పెంపొందించుకుంటారు.
2. ఆధునిక కవుల గురించి తెలుసుకోవడమే కాకుండా వారి రచనల ద్వారా ప్రేమ, సమానత్వం, సహజీవన సంస్కృతి, ఆత్మవిశ్వాసం మొదలైన విలువలు నేర్చుకుంటారు.
3. ఉపవాచకం ద్వారా అధ్యయన స్థాయి పెంచుకోగలుగుతారు. రుద్రమదేవి పాత్ర ద్వారా నిరుపమాన ధైర్యసాహసాలు విజయం కల్గిస్తాయని, చరిత్ర అధ్యయనం ద్వారా లోటుపాట్లు గ్రహించి చక్కటి భవిష్యత్తు నిర్మించుకోవచ్చని గ్రహిస్తారు.
4. భాషా వ్యాకరణాంశాలపై పట్టు సాధిస్తారు.

సెమిస్టర్-II

పేపర్ పేరు	తెలుగు
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పేపర్ కోడ్	202
క్రెడిట్స్	4
మొత్తం పని గంటలు	50

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలు నేర్చుకోగలుతారు.

1. ప్రాచీన కవిత్వ విశేషాలను గ్రహించడంతో పాటు విశ్వాసం, పట్టుదల, సహనం, కార్యదీక్ష, దక్షత మొదలైన లక్షణాలు, ఆవశ్యకత గ్రహించి నేర్చుకుంటారు.
2. ఆధునిక కవిత్వ విశేషాలు గ్రహిస్తారు.
3. వచన కవిత్వ ప్రత్యేకతను గ్రహిస్తారు. తెలంగాణా వచన శైలి విలక్షణతను అవగతం చేసుకుంటారు.
4. వ్యాకరణాంశాలపై అవగాహన పెంపొందించుకుంటారు.

రెండవ సంవత్సరం సెమిస్టర్-III

పేపర్ పేరు	తెలుగు
పేపర్ కోడ్	302
క్రెడిట్స్	3
మొత్తం పని గంటలు	40

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలను నేర్చుకుంటారు.

1. ప్రాచీన పద్య కవిత్వ విశేషాలను గ్రహిస్తారు. వ్యక్తిత్వంలో వాక్చతురత ప్రాధాన్యత, సమయం, విద్యల ప్రాముఖ్యతను గ్రహిస్తారు.
2. ఆధునిక పద్యభాగం ద్వారా ఆధునిక కవుల పద్య రచనా శైలిలోని సారాన్ని గ్రహిస్తారు. బలవంతులుగా మారాలంటే బలమైన వ్యక్తిత్వం అవసరమని గ్రహిస్తారు.
3. అలంకారాలు మనిషి మాటకు ఎంతో వన్నె తెస్తాయని గ్రహిస్తారు.

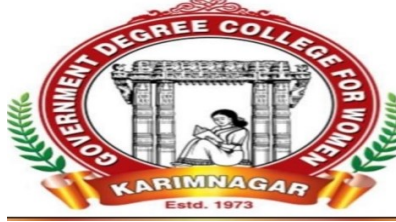
సెమిస్టర్-IV

పేపర్ పేరు	తెలుగు
పేపర్ కోడ్	402
క్రెడిట్స్	3
మొత్తం పని గంటలు	40

ఈ కోర్సు పూర్తయ్యాక విద్యార్థులు క్రింది అంశాలను నేర్చుకుంటారు.

1. ప్రాచీన పద్యాల మాధుర్యం గ్రహిస్తారు. అంతేకాకుండా జీవన విలువలైన వినయం, వాక్పాలన ప్రాధాన్యతను భక్తి ఆవశ్యకతను గుర్తిస్తారు.
2. ఆధునిక పద్యభాగ శైలిని గ్రహిస్తారు. మానవత్వం మన మతం కావాలని గుర్తించడంతో పాటు చారిత్రక స్ఫూర్తిని అందిస్తున్నారని అవసరాన్ని గుర్తిస్తారు.

3. వచన సాహిత్యపు విలక్షణతను ఆకళించుకుంటారు. స్వాతంత్ర్యం వచ్చినప్పటి తెలంగాణా పరిస్థితిని, తెలుగు కథా పరిమళాలను గ్రహిస్తారు.



**GOVERNMENT DEGREE COLLEGE FOR WOMEN
KARIMNAGAR.**

COURSE OUTCOMES

B.A., B. Com, & B.Sc. (Second Language URDU)

SEMESTER- I

Urdu Prose & Poetry

Title of the Paper	Mutala-e- Adab-I Semester- I
Course Code	U 104
Number of Credits	04
Number of Hours	60 Hours

Unit	Title of the Topic	Course Objectives	Course Outcome
I	<p align="center"><u>Ghazliyat</u></p> <p>1.Mohammed Quli Qutub Shah i.Suno Aaqilan Sab ke Duniya hai fani ii.Meri Sanwli Mann ki Pyari disea</p> <p>2.Wali Deccani i.Pee ke hote nakartun meh ki sana ii.sajan ke baaj aalam mein dagar nain</p> <p>3.Siraj Aurangabadi i.Mujhkun ek dam kharar nain hargiz ii.Jo tere gham ki tamanna na kiya</p> <p>4.Meer Taqi Meer i.Koiee nahin Jahan meinjo andho geen nahin ii.Hum se tuk aage zamane main huwa kya kya kuch</p>	<p>To know the Urdu Language how richest one language before 450 years ago, it means in the year 1565 A.D.</p> <p>The importance of first Sahebe-Deewan Shayer Introduction Deccani Literature & enriching language & higher literature</p>	<p>After Completing these Ghazals the Students are able to learn the Culture religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling& Pronunciations of the words</p>
II	<p align="center"><u>Poems</u></p> <p>Nazmein</p> <p>1.Tauheed by Nazeer Akberabadi 2.Mustaqbil by Akber Ilahabadi 3. Funoone-Latifa by Allama Iqbal</p>	<p>Introduction of Literature & enriching language & higher literature and Philosophical thoughts of Iqbal</p>	<p>After Completing these Poetry, the Students are able to learn the Culture religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling& Pronunciations of the words</p>

III	<p style="text-align: center;"><u>Prose</u></p> <p><u>Hikayaat & Drama</u> i.Chand Muntakhab Hikayaat by Mazhar Ali khan ii.Talaash by Imtiyaz Ali Taj & Begum Qudussiya Zaidi</p>	<p>Introduction of Urdu Fiction how Urdu fiction is Impacting the life of Human beings</p>	<p>After Completing these Hikayaat & Drama, the Students are able to learn the Culture religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling & Pronunciations of the words and the Creativity of there minds may outcome</p>
IV	<p style="text-align: center;"><u>Safar Nama</u> i.Hindustan Jannat Nishan by Saleha Abid Hussain</p>	<p>Introduction of Urdu Non- Fiction how Urdu non- factionary Literature is helping the life of Human beings</p>	<p>After Completing this Safar Nama, the Students are able to learn the Culture, religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling & Pronunciations of the words and the Creativity of their minds they may try to write their Safar Nama as an outcome</p>

COURSE OUTCOMES
B.A., B. Com, & B.Sc. (Second Language URDU)
SEMESTER- II
Urdu Prose & Poetry

Title of the Paper	Mutla-e Adab-I Semester- II
Course Code	U 204
Number of Credits	04
Number of Hours	60 Hours

Unit	Title of the Topic	Course Objectives	Course Outcome
I	<p align="center"><u>Ghazliyat</u></p> <p>1.Khaja Hyder Ali Aatish i.Sun to Sahi Jahan mein hai tera fasana kya ii.khusha wo dil ke ho jis dil mein Aarzo teri</p> <p>2.Ghalib i.koi din gar zindagaani aur hai ii.kisi ko deke dil koi nava sanje fughan kiyon ho</p> <p>3.Altaf Hussain Hali i.Mujh mein wo Taabe-zabte shikayat kahan hai ab ii.Dekhna har taraf na majlis mein</p> <p>4.Maqdoom Mohiuddin i.Aap ki yaad Aati Raahi Raat bhar ii.Zindagi mootiyon ki dhalakti ladi Zindagi Range gul ka bayan Dousto</p>	<p>Introduction of Literature & enriching language & higher literature</p> <p>Imparting finer under current of Contemporary Literature</p> <p>Exposing them to Past & Present morals & Ethics of Society.</p>	<p>After Completing these Ghazals the Students are able to learn the Culture religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling & Pronunciations of the words</p>
II	<p align="center"><u>Poems</u></p> <p>Nazmein</p> <p>1.Preet ka Geet by Hafeez Jalandhri 2.Aye Shareef Insaano by Saher Ludhyanvi 3. Ab ke Baras by Shaaz Tamkinat</p>	<p>Imparting finer under current of Contemporary Literature</p> <p>Exposing them to Past & Present morals & Ethics of Society.</p>	<p>After Completing these Poems, the Students are able to learn the Culture religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling & Pronunciations of the words</p>
III	<p align="center"><u>Prose</u></p> <p>Sawaneh & Inshaiyah</p> <p>1.Mirza Ghalib ke Akhlaq wa Aadaat by Hali 2.Padeye gar Beemaar by Mushtaq Ahmed Yousufi</p>	<p>Introduction of Satire Literature & enriching language & higher literature</p> <p>The Importance of Autography's and autobiographies</p>	<p>After Completing this Lessons, the Students are able to learn the Culture, religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling & Pronunciations of the words and the Creativity of their minds they may try to write the Autobiography as an outcome</p>
IV	<p align="center"><u>Khaka</u></p> <p>1.Sulemaan Areeb by Mujtaba Hussain</p>	<p>Introduction of Sketch Literature & enriching language & higher literature</p> <p>The Importance of sketches in the Urdu Literature</p>	<p>After Completing this Lessons, the Students are able to learn the Culture, religious Values integration they will be able to know finest part of the Urdu Language and they may try to write the Sketches</p>

COURSE OUTCOMES
B.A., B. Com, & B.Sc. (Second Language URDU)
SEMESTER -III
Urdu Prose & Poetry

Title of the Paper	Mutla-e Adab-II Semester- III
Course Code	U 304
Number of Credits	03
Number of Hours	45 Hours

Unit	Title of the Topic	Course Objectives	Course Outcome
I	<u>Poetry</u> 1.Masnavi: - Aman Naama 2.Qaseda: - Zouq Dahelvi	Imparting Finer under current of Contemporary Literature Exposing them to Past & Present morals & Ethics of Society. Improving their Creativity & Critical thinking Process.	After Completing these Poetry, the Students are able to learn the Culture religious Values integration they may try to write these type of Poetries
II	<u>Prose</u> 1. Dastan Intekhabe Sabras by Mulla wajhi 2.Novel: - Nusoh aur Saleem ki Guftagu by Deputy Nazeer Ahmed	Introduction of Urdu Fiction how Urdu fiction is Impacting the life of Human beings	After Completing these Dastan & Novel, the Students are able to learn the Culture religious Values integration they will be able to know finest part of the Urdu Language in respect of its Grammar, spelling& Pronunciations of the words in Decani Literature Specially and the Creativity to write Novels as an outcome
III	<u>Prose</u> Inshaiyah &Khutoot 1.Inshaiya :- Zouqe Chai Noushi by Moulana Abul Kalam Azad 2.Khutoot: - Maktoobate Safiya by Safiya Akhtar	Introduction of Urdu Non-Fiction Literature How Humour is important to helping the life of Human beings	After Completing these Lessons, the Students are able to learn the techniques to write humour literature

COURSE OUTCOMES
B.A., B. Com, & B.Sc. (Second Language URDU)
SEMESTER- IV
Urdu Prose & Poetry

Title of the Paper	Mutla-e Adab-II Semester- IV
Course Code	U 404
Number of Credits	03
Number of Hours	45 Hours

Unit	Title of the Topic	Course Objectives	Course Outcome
I	<p style="text-align: center;"><u>Poetry</u> <u>Marsiya , Rubaiyat</u></p> <p>1.Marsiya: - Garmi ka Saman by Meer Anees 2.Rubiyaat: - Meer Anees: - 1.purasaan koi kab Jouhare Zaati ka hai 2. Duniya bhi Ajab Sarai Faani dekhi Altaf Hussain Hali; - 1.Duniya dani ko Nakhshe faani Samjho 2.Yaaro nahi waqt Aaram ka ye Jagat Mohan Lal Rawa: - 1.Iflas Ach ana Fikre Doulat Achi 2. Azad zameer hua Fakheeri ye hai Amjad Hyderabad:- 1.Koushish hai apni tamam sataish ke liye 2. kam zarf agar Doula twa zar paata hai</p>	<p>Imparting Finer under current of Contemporary Literature Exposing them to Past & Present morals & Ethics of Society. Improving their Creativity & Critical thinking Process Show casing them art of living in guest societies</p>	<p>After Completing these Poetry, the Students are able to learn the never die image of the Languages advantageous for its development. The students come across all Such negative image but over comes all this. The Language is so beautiful that one can also his or her entire wealth in love for the language. No other Language in the world has to Pressing and the accepting quality. The students come to know all the aspects.</p>
II	<p style="text-align: center;"><u>Poetry</u> <u>Qitaat</u></p> <p>Akber ILahabadi: - 1.Sab Jaante hain Ilm se hai Zindagi ki Rooh Allama Iqbal:- 1.Andaaze Baayane gar che bahut Shookh nahi hai</p>	<p>Exposing them to Past & Present morals & Ethics of Society. Improving their Creativity & Critical thinking Process Show casing them art of living in guest societies</p>	<p>After Completing these Poetry, the Students are able to learn the never die image of the Languages advantageous for its development.</p>

III	Prose Mazmoon, Tanz o Mizah & Reportaz 1.Qadeem Urdu Mein Natural Shayeri by Naseeruddin Hashmi 2.Murda ba Daste Zinda by Mirza Farhathullah Baig 3. Reportaz Kul Hind Conference by Izhar Asar	Introduction of Urdu Non-Fiction Literature How Humour is important to helping the life of Human beings and introducing them to the world of peace& harmony, patience & tolerance.	After Completing these Lessons, the Students are able to learn the techniques to write humour literature and Reportaz also
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COURSE OUTCOMES
B.A., B. Com, & B.Sc. (Second Language URDU)
SEMESTER -V
Urdu Sahafat

Title of the Paper	Urdu Sahafat Semester- V
Course Code	U 504
Number of Credits	03
Number of Hours	45 Hours

Unit	Title of the Topic	Course Objectives	Course Outcome
I	1.Mass Media 1.Mass media ki Tareef, Ahmiyat wa Ifadiyat, Aagaaz wa Irteqa 2.Jadeed Zaraye Iblagh 3.Electronic Media & Print Media	Journalism is the fourth Pillar of Democracy so in this Connection now a days journalism playing very important role in this era mostly social media electronic media	After Completing this Unit, the Students are able to learn the value of Urdu Journalism what is yellow Journalism after that basically they learn about electronic media

II	Urdu Sahafat 1.Urdu Sahafat ki Tareef, Ahmiyat wa Ifadiyat, Sahafat ke Usool 2Urdu Sahafat ki Ijmaali Tareeq,Sahafati Zaban 3. Urdu ke Mashhoor Sahafi (Moulvi Mohd Baaqar,Lala Lajpat Rai, Moulana Abul Kalam Azad, Hasrat Mohani)	Starting of Urdu journalism history of Urdu Journalism Rising and down falls of Urdu Journalism	After Completing this Unit, the Students are able to learn the value of Urdu Journalism what is yellow Journalism etc.,
III	Funne Sahafat 1.Sahafat ki Aham Tahreerien 2.Idariya Nigaari,Coulmn Nigaari,Feature nigari aur Namanigari	In this Unit teach the students to Practically they have to write Column, features etc.,	After Completing this Unit, the Students are able to learn able to write columns features news reporting's etc.,

COURSE OUTCOMES
B.A., B. Com, & B.Sc. (Second Language URDU)
SEMESTER-VI
Urdu Computers & Translation

Title of the Paper	Urdu Computers & Translation Semester- VI
Course Code	U 604
Number of Credits	03
Number of Hours	45 Hours

Unit	Title of the Topic	Course Objectives	Course Outcome
I	Urdu Computers 1.Computer kiya hai, Ahmiyat, Tareeq aur Ifaadiyat 2.Computer Software & Hardware Introduction 3.Operating System	To know the students what is the importance of Urdu computers now adays students have to learn basic knowledge of Urdu Computers	After Completing this unit Students are able to learn. Some basic operating system and usage of tools etc.,

<p>II</p>	<p><u>Urdu IN page</u> 1.Inpage Urdu ka Tar'uff.Interface, Tools & Menu ka Taruf aur Uske Istemaal ka Tareeqa, Urdu DTP ka Irteqa 2.Different keyBoards (fonts-Noori,Nastaleeq,Butool,Muqtada,etc.,)</p>	<p>To learn basic knowledge of Urdu Computers introduction of software & hardware & operating systems of in page Urdu</p>	<p>After Completing this unit Students are able to operate the operating system of Urdu in page and some basic knowledge of Computers.</p>
<p>III</p>	<p><u>Translation</u> 1.Urdu Tarjuma ka Aaghaaz wa Irteqa,Tarjume ki Zaroorat,Ahmiyat wa Ifadiyat 2.Tarjumanigari ke Mashhoor Idare (Darul Musnaffeen,Darul-Tarjuma Jama Osmania</p>	<p>To know the students what is the importance of Translation now adays students have to learn basic knowledge of Translation Main Translation works.</p>	<p>After Completing this unit Students are able to Translate from Urdu to English and English to Urdu</p>

Department of Zoology Program Outcomes

Program Specific Outcomes and Course Outcomes of B.Sc. in Zoology Programme

The Department of Zoology, Government Degree and PG College For Women offers Zoology as a core subject for undergraduate and post graduate courses for students.

Program Outcomes: B. Sc. Zoology

PO1 - Aware students about knowledge and skill in the fundamentals and systematics of animal kingdom.

PO2 - Gain knowledge of anatomical structure and various metabolic functions of organisms.

PO3 - Understand various physiological processes at molecular level of animals from different phyla.

PO4 - Information and skill of advanced biological techniques for experimental purpose. PO5 - Awareness about environment and its conservation processes, pollution control and its importance and.

PO6 - Gain knowledge of protection of vulnerable and endangered species

PO7 - Information and skill of applied zoology including sericulture, apiculture, fisheries, poultry, vermiculture, agricultural pests and their control etc.

PO8 - Understand about various concepts of genetics and its importance in social wellbeing.

PO9 - Aware students about ethical principles and commit to professional ethics and responsibilities.

PO10 - Apply the knowledge and understanding of Zoology to one's own and social life. PO11 - Gain knowledge of communicable and non-communicable diseases to improve personal and public health.

Program Specific Outcomes: B. Sc. Zoology

PSO1. Acquire knowledge on the various aspects of life sciences, cell biology, genetics, taxonomy, physiology, applied zoology, general embryology and public health.

PSO2. Understand good laboratory practices and safety, Carry out experimental techniques and methods of Physiology, Cell biology, pathology, Genetics, Applied Zoology, Biological techniques, Sericulture, Biochemistry.

PSO4. Understand the applications of biological sciences in Biotechnology, Apiculture, Poultry, Fisheries, Aquaculture, Agriculture and vermiculture.

PSO5. The students gained the knowledge to use modern sophisticated equipments and tools.

PSO6. Recognize the scientific facts behind natural phenomena.

Course Outcomes: B.Sc. Zoology is an undergraduate THREE years Program in Zoology and divided into six semesters. It comprises subjects such Animal Diversity of Invertebrates

&Vertebrates,Animal physiology and Ethology,Cell Biology,Genetics and Developmental Biology,Immunology and Biotechnology ,Tools and Techniques in Biology,Biochemistry ,Ecology,Zoogeography and Evolution.

Animal Diversity :

CO1: The student will be able to understand classify and identify the diversity of animals.

CO2: The student understands the importance of classification of animals and classifies them effectively using the six levels of classification.

CO3: The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.

CO4: The student will be able to understand the morphology, habit and habitat. Systematic position and various systems in Invertebrates and Vertebrates.

CO5: The student will be able to understand classify and identify the diversity of animals.

CO6: The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.

Animal physiology and Ethology :

CO1: Students will learn about basics of histology and tissue staining.

CO2: They will also understand the physiology of digestion, respiration, circulation, excretion, adaptation. muscles, nerves, reproductive systems and bone.

CO3: They will learn details of endocrinology with classification of hormones, their biosynthesis, receptors, mode of molecular actions, physiological function, feedback controls and related disorders.

CO4:Students will know in details about patterns of behaviours, survival strategies, social and cooperative behaviours, design of signals and chronobiology.

CO5:They will also know to construct ethograms.

Cell Biology :

CO1:Students will understand the structures, positions and functions of plasma membrane and all cellular organelles in details.

CO2:They will acquire knowledge about chromosomes and cell divisions, both mitosis and meiosis.

CO3:They will also know about cell signalling and cancers. They will know how to measure and stain different cell types.

Genetics :

CO1:Students will learn the fundamental genetics like Mendelian and Non Mendelian inheritances, linkages, mutations, sex determination of various animals, extrachromosomal inheritances, transposable genetic elements etc.

Developmental Biology:

CO1:Students will learn the different aspects of early, late and post embryonic developments.
CO2:They will have the knowledge about implications of developmental biology in various fields, such as in teratogenesis, stem cell biology, in vitro fertilization, cryopreservation, cord blood transfusion etc.

Immunology:

CO1:Students will develop knowledge about structures and function of immune cells, immunoglobulins, antigens and their interactions with antibodies.

CO2:They will know about MHC molecules, cytokines, hyper sensitivity reactions and cellular mode of immunity development.

CO3:They will know the immune diffusion technique and ELISA.

Biotechnology:

CO1: Imparts the Knowledge to culture animal cells in artificial media.

CO2:Knowledge of animal cells in culture, growth of cell lines

CO3: Use in recombinant DNA technology, genetic manipulations and in a variety of industrial processes.

Ecology:

CO1:Students will be understanding the various features and aspects of population ecology, community ecology and ecosystem ecology.

CO2:They might have the knowledge about environmental biology in details.

CO3: They will acquire knowledge about various tools and techniques of field ecology.

Evolution:

CO1:Students will know about population genetics, human evolution, various concepts about origin of species, extinctions, phylogenetic tree making.

Tools and Techniques in Biology:

CO1:Students gain knowledge about various tools & techniques used in biological systems and give them insight about their use in research.

Biochemistry:

CO1: Students will understand the metabolism of carbohydrates, lipids and proteins in details. They will also learn about oxidative phosphorylation and redox reactions.

Subject: ENGLISH

COURSE OUTCOMES

B.A./Com/B.Sc common General English course Student will be able to understand the different aspects of various thematic & grammatical topics of English demonstrate skills & competencies to conduct wide range of specific activities. It helps them in various fields by identifying their area of interest.

B.A/B.Com/B.sc PROGRAMME

FIRST YEAR

SEMESTER-I

Title & paper : English for communication 1

Course code : 101

Credits : 4

Total Hours : 42

On the successful completion of the course students have

CO1: Grasps the fundamentals of grammar and spellings of various content words & structure words, four types of sentences, with suitable verb forms.

CO2: Learns to write conversations on various topics, Identifying finite, infinite & participle verbs or genders.

SEMESTER-II

Title & paper : English for communication 1

Course code : 201

Credits : 4

Total Hours : 42

CO1: Learns the fundamentals of tense including Active voice & Passive voice and grasps the significance of topics like Direct, Indirect speech & Degree of comparison.

CO2: Studies general topics like Concord, Conjugation, Question tags and three types of sentences like simple, complex, compound & their mutual transformation.

SECOND YEAR

SEMESTER-III

Title & paper : English for communication 2

Course code : 301

Credits : 4

Total Hours : 42

On the successful completion of the course students have

CO1: Goes through selected literary works and finds glimpses of life and the world from various perspectives.

CO2: Acquires and learns to make use of grammar skills when they face competitive exams.

SEMESTER-IV

Title & paper : English for communication 2

Course code : 401

Credits : 4

Total Hours : 42

CO1: improves their telephonic conversations, job oriented skills, e-mail writing skills and etiquette.

CO2: By going through the anthology, students inculcate human values.