

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF PHYSICS

PROGRAMME OUTCOMES: B.Sc.

Possess a sound understanding of the theoretical foundations of various core subjects.

Acquire analytical and logical thinking skills necessary to pursue higher education.

Gain employment at entry level positions based on program curriculum.

ATTAINMENT OF COURSE OUTCOMES: PHYSICS DEPARTMENT

PROGRAMME: M.P.C.

The combination integrating all Basic Science courses lays a strong foundation and prepares the learner for Post Graduation research in respective disciplines.

PROGRAMME: M.P.CS.

- Master a broad set of knowledge concerning the fundamentals in the basic areas of Physics and Mathematics added with the necessary hands-on experience in various practical aspects of problem solving/programming/ experimentation.
- The program imparts students with an understanding of the basics of Computer Science, to develop proficiency in the practice of computing, and to prepare them for continued professional development

First Semester

Course I: Mechanics, Waves and Oscillations

Practical Course I (Lab-1)

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the students will be able to:</u></p> <p>➤ <i>Understand Newton's laws of motion and motion of variable mass system and its application to rocket motion and the concepts of impact parameter, scattering cross section.</i></p> <p>➤ <i>Apply the rotational kinematic relations, the principle and working of gyroscope and its applications and the precessional motion of a freely rotating symmetric top.</i></p> <p>➤ <i>Comprehend the general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation.</i></p> <p>➤ <i>Understand postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence.</i></p> <p>➤ <i>Examine phenomena of simple harmonic motion and the distinction between undamped, damped and forced oscillations and the concepts of resonance and quality factor with reference to damped harmonic oscillator.</i></p> <p>➤ <i>Appreciate the formulation of the problem of coupled oscillations and solve them to obtain normal modes of oscillation and their frequencies in simple mechanical systems.</i></p> <p>➤ <i>Figure out the formation of harmonics and overtones in a stretched string and acquire the knowledge on Ultrasonic waves, their production and detection and their applications in different fields.</i></p>	

<p>LABORATORY Course Outcomes (Practicals): <u>On successful completion of this practical course, the student will be able to:</u></p> <ul style="list-style-type: none"> ➤ Perform experiments on Properties of matter such as the determination of moduli of elasticity viz., Young's modulus, Rigidity modulus of certain materials; Surface tension of water, Coefficient of viscosity of a liquid, Moment of inertia of some regular bodies by different methods and compare the experimental values with the standard values. ➤ Know how to determine the acceleration due to gravity at a place using Compound pendulum and Simple pendulum. ➤ Notice the difference between flat resonance and sharp resonance in case of volume resonator and sonometer experiments respectively. ➤ Verify the laws of transverse vibrations in a stretched string using sonometer and comment on the relation between frequency, length and tension of a stretched string under vibration. ➤ Demonstrate the formation of stationary waves on a string in Melde's string experiment. ➤ Observe the motion of coupled oscillators and normal modes. 	
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Second Semester

Course II: Wave Optics

Practical Course II (Lab-2)

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the student will be able to:</u></p> <ul style="list-style-type: none"> ❖ Understand the phenomenon of interference of light and its formation in (i) Lloyd's single mirror due to division of wave front and (ii) Thin films, Newton's rings and Michelson interferometer due to division of amplitude. ❖ Distinguish between Fresnel's diffraction and Fraunhofer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating. ❖ Describe the construction and working of zone plate and make the comparison of zone plate with convex lens. ❖ Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.. ❖ Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields. ❖ Explain about the different aberrations in lenses and discuss the methods of minimizing them. ❖ Understand the basic principles of fibre optic communication and explore the field of Holography and Nonlinear optics and their applications. <p>LABORATORY Course Outcomes (Practicals): <u>On successful completion of this practical course the student will be able to:</u></p> <ol style="list-style-type: none"> 1. Gain hands-on experience of using various optical instruments like spectrometer, polarimeter and making finer measurements of wavelength of light using Newton Rings experiment, diffraction grating etc. 2. Understand the principle of working of polarimeter and the measurement of specific rotatory power of sugar solution 3. Know the techniques involved in measuring the resolving power of telescope and dispersive power of the material of the prism. 	

4. Be familiar with the determination of refractive index of liquid by Boy's method and the determination of thickness of a thin wire by wedge method.	
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Third Semester

Course III: Heat and Thermodynamics

Practical Course III (Lab-3)

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the student will be able to:</u></p> <ul style="list-style-type: none"> ❖ Understand the basic aspects of kinetic theory of gases, Maxwell-Boltzman distribution law, equipartition of energies, mean free path of molecular collisions and the transport phenomenon in ideal gases ❖ Gain knowledge on the basic concepts of thermodynamics, the first and the second law of thermodynamics, the basic principles of refrigeration, the concept of entropy, the thermodynamic potentials and their physical interpretations. ❖ Understand the working of Carnot's ideal heat engine, Carnot cycle and its efficiency ❖ Develop critical understanding of concept of Thermodynamic potentials, the formulation of Maxwell's equations and its applications. ❖ Differentiate between principles and methods to produce low temperature and liquefy air and also understand the practical applications of substances at low temperatures. ❖ Examine the nature of black body radiations and the basic theories. <p>LABORATORY Course Outcomes: <u>On successful completion of this practical course, the student will be able to:</u></p> <ul style="list-style-type: none"> ➤ Perform some basic experiments in thermal Physics, viz., determinations of Stefan's constant, coefficient of thermal conductivity, variation of thermo-emf of a thermocouple with temperature difference at its two junctions, calibration of a thermocouple and Specific heat of a liquid. 	

Fourth Semester

Course IV: Electricity, Magnetism and Electronics

Practical Course IV (Lab- 4)

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the students will be able to:</u></p> <ul style="list-style-type: none"> ❖ Understand the Gauss law and its application to obtain electric field in different cases and formulate the relationship between electric displacement vector, electric polarization, Susceptibility, Permittivity and Dielectric constant. ❖ Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances. ❖ Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents. ❖ Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves. ❖ Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q-factor, Power factor and the comparative study of series and parallel resonant circuits. ❖ Describe the operation of p-n junction diodes, zener diodes, light emitting 	

<p><i>diodes and transistors</i></p> <p>❖ <i>Understand the operation of basic logic gates and universal gates and their truth tables.</i></p> <p>LABORATORY</p> <p>Course Outcomes (Practicals):</p> <p><u>On successful completion of this practical course the student will be able to:</u></p> <p>➤ <i>Measure the current sensitivity and figure of merit of a moving coil galvanometer.</i></p> <p>➤ <i>Observe the resonance condition in LCR series and parallel circuit</i></p> <p>➤ <i>Learn how a sonometer can be used to determine the frequency of AC-supply.</i></p> <p>➤ <i>Observe the variation of magnetic field along the axis of a circular coil carrying current using Stewart and Gee's apparatus.</i></p> <p>➤ <i>Understand the operation of PN junction diode, Zener diode and a transistor and their V-I characteristics.</i></p> <p>➤ <i>Construct the basic logic gates, half adder and full adder and verify their truth tables. Further, the student will understand how NAND and NOR gates can be used as universal building blocks.</i></p>	
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Fourth Semester

Course V: Modern Physics

Practical Course V (Lab-V)

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the students will be able to:</u></p> <p>❖ <i>Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum mechanics and nuclear physics.</i></p> <p>❖ <i>Develop critical understanding of concept of Matter waves and Uncertainty principle.</i></p> <p>❖ <i>Get familiarized with the principles of quantum mechanics and the formulation of Schrodinger wave equation and its applications.</i></p> <p>❖ <i>Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features of Nuclear models and different nuclear radiation detectors.</i></p> <p>❖ <i>Classify Elementary particles based on their mass, charge, spin, half life and interaction.</i></p> <p>❖ <i>Get familiarized with the nano materials, their unique properties and applications.</i></p> <p>❖ <i>Increase the awareness and appreciation of superconductors and their practical applications.</i></p> <p>LABORATORY</p> <p>Course Outcomes:</p> <p><u>On successful completion of this practical course, the student will be able to:</u></p> <p>➤ <i>Measure charge of an electron and e/m value of an electron by Thomson method.</i></p> <p>➤ <i>Understand how the Planck's constant can be determined using Photocell and LEDs.</i></p> <p>➤ <i>Study the absorption of α-rays and β-rays, Range of β-particles and the characteristics of GM counter</i></p> <p>➤ <i>Determine the Energy gap of a semiconductor using thermistor and junction diode</i></p>	

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF CHEMISTRY

PROGRAMME OUTCOMES: B.Sc.

Expertise in the basic sciences provides the students with opportunities to go for Higher Education and also employment opportunities in industries, diagnostics, quality control and research.

Promotes an in-depth exploration in specific fields, current ways of thinking, new discoveries, and methodologies of the discipline leading the way towards biological research, health professions, business or education

ATTAINMENT OF COURSE OUTCOMES: CHEMISTRY DEPARTMENT

PROGRAM: M.P.C.

The combination integrating all Basic Science courses lays a strong foundation and prepares the learner for Post Graduation research in respective disciplines.

PROGRAM: C.B.Z.

Master fundamental skills to function effectively as professionals and continue learning within the field of Biology

- Provides an understanding of an exploration of how animals have evolved, how they function, and the ways in which they interact with their environment.
- An awareness of the impact of chemistry on the environment, society, appraise role of green chemistry in environment sustainability.

PROGRAM: C.B.BT.

Master fundamental skills to function effectively as professionals and continue learning within the field of Bio-Technology

- An awareness of the impact of Bio-Technology on the environment, society, appraise role of Bio-Technology in environment sustainability.

First Semester

Course I: Inorganic & Physical Chemistry

Practical Course I (Lab-1)

Course Outcomes	Whether attained
<i>At the end of the course, the student will be able to:</i> <i>1. Understand the basic concepts of p-block elements</i> <i>2. Explain the difference between solid, liquid and gases in terms of intermolecular interactions.</i> <i>3. Apply the concepts of gas equations, pH and electrolytes while studying other chemistry courses.</i>	
LABORATORY Course outcomes (Practicals): <i>At the end of the course, the student will be able to:</i> <i>1. Understand the basic concepts of qualitative analysis of inorganic mixture</i>	

2. Use glassware, equipment and chemicals and follow experimental procedures in the laboratory	
3. Apply the concepts of common ion effect, solubility product and concepts related to qualitative analysis	

Second Semester

Course II: Organic & General Chemistry

Practical Course II (Lab-2)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <p>1. Understand and explain the differential behaviour of organic compounds based on fundamental concepts learnt.</p> <p>2. Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.</p> <p>3. Learn and identify many organic reaction mechanisms including Free Radical Substitution, Electrophilic Addition and Electrophilic Aromatic Substitution.</p> <p>4. Correlate and describe the stereochemical properties of organic compounds and reactions.</p> <p>LABORATORY Course Outcomes (Practicals): <u>At the end of the course, the student will be able to:</u></p> <p>1. Use glassware, equipment and chemicals and follow experimental procedures in the laboratory.</p> <p>2. Understand and explain the volumetric analysis based on fundamental concepts learnt in ionic equilibria.</p> <p>3. Learn and identify the concepts of a standard solutions, primary and secondary standards.</p> <p>4. Facilitate the learner to make solutions of various molar concentrations. This may include: The concept of the mole; Converting moles to grams; Converting grams to moles; Defining concentration; Dilution of Solutions; Making different molar concentrations.</p>	

Third Semester

Course III: Organic Chemistry and Spectroscopy

Practical Course III (Lab-3)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <p>1. Understand preparation, properties and reactions of haloalkanes, haloarenes and oxygen containing functional groups.</p> <p>2. Use the synthetic chemistry learnt in this course to do functional group transformations.</p> <p>3. To propose plausible mechanisms for any relevant reaction</p> <p>LABORATORY Course Outcomes (Practicals): <u>On the completion of the course, the student will be able to do the following:</u></p> <p>1. how to use glassware, equipment and chemicals and follow experimental procedures in the laboratory</p> <p>2. how to calculate limiting reagent, theoretical yield, and percent yield</p> <p>3. how to engage in safe laboratory practices by handling laboratory glassware,</p>	

<p>equipment, and chemical reagents appropriately</p> <p>4. how to dispose of chemicals in a safe and responsible manner</p> <p>5. how to perform common laboratory techniques including reflux, distillation, recrystallization, vacuum filtration.</p> <p>6. how to create and carry out work up and separation procedures</p> <p>7. how to critically evaluate data collected to determine the identity, purity, and percent yield of products and to summarize findings in writing in a clear and concise manner</p>	
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Fourth Semester

Course IV: Inorganic, Organic and Physical Chemistry

Practical Course IV (Lab- 4)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ol style="list-style-type: none"> To learn about the laws of absorption of light energy by molecules and the subsequent photochemical reactions. To understand the concept of quantum efficiency and mechanisms of photochemical reactions. <p>LABORATORY</p> <p>Course outcomes (Practicals):</p> <p><u>At the end of the course, the student will be able to:</u></p> <ol style="list-style-type: none"> Use glassware, equipment and chemicals and follow experimental procedures in the laboratory Determine melting and boiling points of organic compounds Understand the application of concepts of different organic reactions studied in theory part of organic chemistry 	

Fourth Semester

Course V: Inorganic and Physical Chemistry

Practical Course IV (Lab- 5)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ol style="list-style-type: none"> Understand concepts of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation values Application of quantization to spectroscopy. Various types of spectra and the use in structure determination. <p>LABORATORY</p> <p>Outcomes:</p> <p><u>At the end of the course, the student will be able to:</u></p> <ol style="list-style-type: none"> Use glassware, equipment and chemicals and follow experimental procedures in the laboratory Apply concepts of electrochemistry in experiments Be familiar with electro analytical methods and techniques in analytical chemistry which study an analyte by measuring the potential (volts) and/or current (amperes) in an electrochemical cell containing the analyte 	

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF MATHEMATICS

PROGRAMME OUTCOMES: B.Sc.

Possess a sound understanding of the theoretical foundations of various core subjects.

Acquire analytical and logical thinking skills necessary to pursue higher education.

Gain employment at entry level positions based on program curriculum.

ATTAINMENT OF COURSE OUTCOMES: MATHEMATICS DEPARTMENT

PROGRAM: M.P.C.

The combination integrating all Basic Science courses lays a strong foundation and prepares the learner for Post Graduation research in respective disciplines.

PROGRAM: M.P.CS.

- Master a broad set of knowledge concerning the fundamentals in the basic areas of Physics and Mathematics added with the necessary hands-on experience in various practical aspects of problem solving/programming/ experimentation.
- The program imparts students with an understanding of the basics of Computer Science, to develop proficiency in the practice of computing, and to prepare them for continued professional development

First Semester

Course I: Differential Equations

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

Second Semester

Course II: Three Dimensional Analytical Solid Geometry

Course Outcomes	Whether attained
<u>After successful completion of this course, the student will be able to:</u> 1. Get the knowledge of planes. 2. Basic idea of lines, sphere and cones. 3. Understand the properties of planes, lines, spheres and cones. 4. Express the problems geometrically and then to get the solution	

Third Semester

Course III: Abstract Algebra

Course Outcomes	Whether attained
<p><u>After successful completion of this course, the student will be able to:</u></p> <ol style="list-style-type: none"> 1. Acquire the basic knowledge and structure of groups, subgroups and cyclic groups. 2. Get the significance of the notation of a normal subgroups. 3. Get the behaviour of permutations and operations on them. 4. Study the homomorphisms and isomorphisms with applications. 5. Understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems. 6. Understand the applications of ring theory in various fields. 	

Fourth Semester

Course IV: Real Analysis

Course Outcomes	Whether attained
<p><u>After successful completion of this course, the student will be able to:</u></p> <ol style="list-style-type: none"> 1. Get clear idea about the real numbers and real valued functions. 2. Obtain the skills of analyzing the concepts and applying appropriate methods for testing convergence of a sequence/ series. 3. Test the continuity and differentiability and Riemann integration of a function. 4. Know the geometrical interpretation of mean value theorems. 	

Fourth Semester

Course V: Linear Algebra

Course Outcomes	Whether attained
<p><u>After successful completion of this course, the student will be able to:</u></p> <ol style="list-style-type: none"> 1. Understand the concepts of vector spaces, subspaces, bases, dimension and their properties 2. Understand the concepts of linear transformations and their properties 3. Apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods 4. Learn the properties of inner product spaces and determine orthogonality in inner product spaces. 	

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF COMPUTER SCIENCE

PROGRAMME OUTCOMES: B.Sc.

Possess a sound understanding of the theoretical foundations of various core subjects.

Acquire analytical and logical thinking skills necessary to pursue higher education.

Gain employment at entry level positions based on program curriculum.

ATTAINMENT OF COURSE OUTCOMES: COMPUTER SCIENCE DEPARTMENT

PROGRAM: M.P.CS.

- Master a broad set of knowledge concerning the fundamentals in the basic areas of Physics and Mathematics added with the necessary hands-on experience in various practical aspects of problem solving/programming/experimentation.
- The program imparts students with an understanding of the basics of Computer Science, to develop proficiency in the practice of computing, and to prepare them for continued professional development

First Semester

Course I: Problem Solving in C

Practical Course I (Lab-1)

Course Outcomes	Whether attained
<u>On successful completion of this course, the students will be able to:</u> <i>1. Understand the evolution and functionality of a Digital Computer.</i> <i>2. Apply logical skills to analyse a given problem</i> <i>3. Develop an algorithm for solving a given problem.</i> <i>4. Understand “C” language constructs like Iterative statements, Array processing, Pointers, etc.</i> <i>5. Apply “C” language constructs to the algorithms to write a “C” language program.</i>	

Second Semester

Course II: Data Structure using C

Practical Course II (Lab-2)

Course Outcomes	Whether attained
<u>On successful completion of this course, the student will be able to:</u> <i>1. Understand available Data Structures for data storage and processing.</i> <i>2. Comprehend Data Structure and their real-time applications - Stack, Queue, Linked List, Trees and Graph</i> <i>3. Choose a suitable Data Structures for an application</i> <i>4. Develop ability to implement different Sorting and Search methods</i> <i>5. Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal</i> <i>6. Design and develop programs using various data structures</i> <i>7. Implement the applications of algorithms for sorting, pattern matching etc</i>	

Third Semester**Course III: Database Management Systems****Practical Course III (Lab-3)**

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the student will be able to:</u></p> <ol style="list-style-type: none"> 1. Gain knowledge of Database and DBMS. 2. Understand the fundamental concepts of DBMS with special emphasis on relational data model. 3. Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database 4. Model database using ER Diagrams and design database schemas based on the model. 5. Create a small database using SQL. 6. Store, Retrieve data in database. 	

Fourth Semester**Course IV: Objected Oriented Programming through JAVA****Practical Course IV (Lab- 4)**

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the students will be able to:</u></p> <ol style="list-style-type: none"> 1. Understand the benefits of a well-structured program 2. Understand different computer programming paradigms 3. Understand underlying principles of Object-Oriented Programming in Java 4. Develop problem-solving and programming skills using OOP concepts 5. Develop the ability to solve real-world problems through software development in high-level programming language like Java 	

Fourth Semester**Course V: Operating Systems****Practical Course V (Lab-V)**

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the students will be able to:</u></p> <ol style="list-style-type: none"> 1. Know Computer system resources and the role of operating system in resource management with algorithms 2. Understand Operating System Architectural design and its services. 3. Gain knowledge of various types of operating systems including Unix and Android. 4. Understand various process management concepts including scheduling, synchronization, and deadlocks. 5. Have a basic knowledge about multithreading. 6. Comprehend different approaches for memory management. 7. Understand and identify potential threats to operating systems and the security features design to guard against them. 8. Specify objectives of modern operating systems and describe how operating systems have evolved over time. 9. Describe the functions of a contemporary operating system 	

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF BOTANY

PROGRAMME OUTCOMES: B.Sc.

Expertise in the basic sciences provides the students with opportunities to go for Higher Education and also employment opportunities in industries, diagnostics, quality control and research.

Promotes an in-depth exploration in specific fields, current ways of thinking, new discoveries, and methodologies of the discipline leading the way towards biological research, health professions, business or education

ATTAINMENT OF COURSE OUTCOMES: CHEMISTRY DEPARTMENT

PROGRAM: C.B.Z.

Master fundamental skills to function effectively as professionals and continue learning within the field of Biology

- Provides an understanding of an exploration of how animals have evolved, how they function, and the ways in which they interact with their environment.
- An awareness of the impact of chemistry on the environment, society, appraise role of green chemistry in environment sustainability.

First Semester:

Course I- Fundamentals of Microbes and Non-vascular plants

Course I: Practical Course I (Lab-1)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none">➤ Explain origin of life on the earth.➤ Illustrate diversity among the viruses and prokaryotic organisms and can categorize them.➤ Classify fungi, lichens, algae and bryophytes based on their structure, reproduction and life cycles.➤ Analyze and ascertain the plant disease symptoms due to viruses, bacteria and fungi.➤ Recall and explain the evolutionary trends among amphibians of plant kingdom for their shift to land habitat.➤ Evaluate the ecological and economic value of microbes, thallophytes and bryophytes. <p>LABORATORY</p> <p>Course outcomes (Practicals):</p> <p><u>At the end of the course, the student will be able to:</u></p> <ol style="list-style-type: none">1. Demonstrate the techniques of use of lab equipment, preparing slides and identify the material and draw diagrams exactly as it appears.2. Observe and identify microbes and lower groups of plants on their own.3. Demonstrate the techniques of inoculation, preparation of media etc.4. Identify the material in the permanent slides etc.	

Second Semester

Course II: Basics of vascular plants and Phytogeography

Practical Course II (Lab-2)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none">➤ Classify and compare Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycles.➤ Justify evolutionary trends in tracheophytes to adapt for land habitat.➤ Explain the process of fossilization and compare the characteristics of extinct and extant plants.➤ Critically understand various taxonomical aids for identification of Angiosperms.➤ Analyze the morphology of the most common Angiosperm plants of their localities and recognize their families.➤ Evaluate the ecological, ethnic and economic value of different tracheophytes and summarize their goods and services for human welfare.➤ Locate different phytogeographical regions of the world and India and can analyze their floristic wealth. <p>LABORATORY</p> <p>Course outcomes (Practicals):</p> <p><u>At the end of the course, the student will be able to</u></p> <ol style="list-style-type: none">1. Demonstrate the techniques of section cutting, preparing slides, identifying of the material and drawing exact figures.2. Compare and contrast the morphological, anatomical and reproductive features of vascular plants.3. Identify the local angiosperms of the families prescribed to their genus and species level and prepare herbarium.4. Exhibit skills of preparing slides, identifying the given twigs in the lab and drawing figures of plant twigs, flowers and floral diagrams as they are.5. Prepare and preserve specimens of local wild plants using herbarium techniques.	

Third Semester

Course III: Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity

Practical Course III (Lab-3)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none">➤ Understand on the organization of tissues and tissue systems in plants.➤ Illustrate and interpret various aspects of embryology.➤ Discuss the basic concepts of plant ecology, and evaluate the effects of environmental and biotic factors on plant communities.➤ Appraise various qualitative and quantitative parameters to study the population and community ecology.➤ Correlate the importance of biodiversity and consequences due to its loss.➤ Enlist the endemic/endangered flora and fauna from two biodiversity hot spots in India and assess strategies for their conservation.	

<p>LABORATORY <u>On the completion of the course ,the student will be able to do the following:</u> 1. Get familiarized with techniques of section making, staining and microscopic study of vegetative, anatomical and reproductive structure of plants.</p> <p>2. Observe externally and under microscope, identify and draw exact diagrams of the material in the lab.</p> <p>3. Demonstrate application of methods in plant ecology and conservation of biodiversity and qualitative and quantitative aspects related to populations and communities of plants.</p>	
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Fourth Semester

Course IV: Plant Physiology and Metabolism

Practical Course IV (Lab- 4)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none"> ➤ Comprehend the importance of water in plant life and mechanisms for transport of water and solutes in plants. ➤ Evaluate the role of minerals in plant nutrition and their deficiency symptoms. ➤ Interpret the role of enzymes in plant metabolism. ➤ Critically understand the light reactions and carbon assimilation processes responsible for synthesis of food in plants. ➤ Analyze the biochemical reactions in relation to Nitrogen and lipid metabolisms. ➤ Evaluate the physiological factors that regulate growth and development in plants. ➤ Examine the role of light on flowering and explain physiology of plants under stress conditions. <p>LABORATORY Course outcomes (Practicals): <u>At the end of the course, the student will be able to</u> 1. Conduct lab and field experiments pertaining to Plant Physiology, that is, biophysical and biochemical processes using related glassware, equipment, chemicals and plant material.</p> <p>2. Estimate the quantities and qualitative expressions using experimental results and calculations</p> <p>3. Demonstrate the factors responsible for growth and development in plants</p>	

Fourth Semester

Course V: Cell Biology, Genetics and Plant Breeding (Lab-V)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none"> ➤ Distinguish prokaryotic and eukaryotic cells and design the model of a cell. ➤ Explain the organization of a eukaryotic chromosome and the structure of genetic material. ➤ Demonstrate techniques to observe the cell and its components under a microscope. ➤ Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings. ➤ Elucidate the role of extra-chromosomal genetic material for inheritance of characters. ➤ Evaluate the structure, function and regulation of genetic material. 	

- *Understand the application of principles and modern techniques implant breeding.*
- *Explain the procedures of selection and hybridization for improvement of crops.*

LABORATORY

Outcomes:

At the end of the course, the student will be able to

- 1. Show the understanding of techniques of demonstrating Mitosis and Meiosis in the laboratory and identify different stages of cell division.*
- 2. Identify and explain with diagram the cellular parts of a cell from a model or picture and prepare models*
- 3. Solve the problems related to crosses and gene interactions.*
- 4. Demonstrate plant breeding techniques such as emasculation and bagging*

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF ZOOLOGY

PROGRAMME OUTCOMES: B.Sc.

Expertise in the basic sciences provides the students with opportunities to go for Higher Education and also employment opportunities in industries, diagnostics, quality control and research.

Promotes an in-depth exploration in specific fields, current ways of thinking, new discoveries, and methodologies of the discipline leading the way towards biological research, health professions, business or education

ATTAINMENT OF COURSE OUTCOMES: ZOOLOGY DEPARTMENT

PROGRAM: C.B.Z.

Master fundamental skills to function effectively as professionals and continue learning within the field of Biology

- Provides an understanding of an exploration of how animals have evolved, how they function, and the ways in which they interact with their environment.
- An awareness of the impact of chemistry on the environment, society, appraise role of green chemistry in environment sustainability.

First Semester:

Course I: Animal Diversity-Biology of Non-chordates

Practical Course I (Lab-1)

Course Outcomes	Whether attained
<p><i>At the end of the course, the student will be able to:</i></p> <p>CO1 Describe general taxonomic rules on animal classification</p> <p>CO2 Classify Protozoa to Coelenterata with taxonomic keys</p> <p>CO3 Classify Phylum Platy hemninthes to Annelida phylum using examples from parasitic adaptation and vermin composting</p> <p>CO4 Describe Phylum Arthropoda to Mollusca using examples and importance of insects and Molluscans</p> <p>CO5 Describe Echinodermata to Hemichordata with suitable examples and larval stages in relation to the phylogeny</p> <p>LABORATORY</p> <p>Course outcomes (Practicals):</p> <p><i>At the end of the course, the student will be able to:</i></p> <ul style="list-style-type: none">• To understand the importance of preservation of museum specimens• To identify animals based on special identifying characters• To understand different organ systems through demo or virtual dissections• To maintain a neat, labelled record of identified museum specimens	

Second Semester

Course II: Animal Diversity- Biology of Chordates

Practical Course II (Lab-2)

Course Outcomes	Whether attained
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<p><u>At the end of the course, the student will be able to:</u> CO1 Describe general taxonomic rules on animal classification of chordates CO2 Classify Protochordata to Mammalia with taxonomic keys CO3 Understand Mammals with specific structural adaptations CO4 Understand the significance of dentition and evolutionary significance CO5 Understand the origin and evolutionary relationship of different phyla from Prochordata to mammalia.</p> <p>LABORATORY Course outcomes (Practicals): <u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none"> ➤ To understand the taxidermic and other methods of preservation of chordates ➤ To identify chordates based on special identifying characters ➤ To understand internal anatomy of animals through demo or virtual dissections, thus directing the student for “empathy towards the fellow living beings” ➤ To maintain a neat, labelled record of identified museum specimens 	
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Third Semester

Course III: Cell Biology, Genetics, Molecular Biology and Evaluation

Practical Course III (Lab-3)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u> CO1 To understand the basic unit of the living organisms and to differentiate the organisms by their cell structure. CO2 Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell. CO3 To understand the history of origin of branch of genetics, gain knowledge on heredity, interaction of genes, various types of inheritance patterns existing in animals CO4 Acquiring in-depth knowledge on various aspects of genetics involved in sex determination, human karyotyping and mutations of chromosomes resulting in various disorders CO5 Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins. CO6 Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals for the benefit of the society</p> <p>LABORATORY <u>On the completion of the course ,the student will be able to do the following:</u></p> <ul style="list-style-type: none"> ➤ Acquainting and skill enhancement in the usage of laboratory microscope ➤ Hands-on experience of different phases of cell division by experimentation ➤ Develop skills on human karyotyping and identification of chromosomal disorders ➤ To apply the basic concept of inheritance for applied research ➤ To get familiar with phylogeny and geological history of origin & evolution of animals. 	

Fourth Semester

Course IV: Animal Physiology, Cellular Metabolism and Embryology

Practical Course IV (Lab- 4)

Course Outcomes	Whether attained

<p><u>At the end of the course, the student will be able to:</u> CO1 Understand the functions of important animal physiological systems including digestion, cardio-respiratory and renal systems. CO2 Understand the muscular system and the neuro-endocrine regulation of animal growth, development and metabolism with a special knowledge of hormonal control of human reproduction. CO3 Describe the structure, classification and chemistry of biomolecules and enzymes responsible for sustenance of life in living organisms CO4 Develop broad understanding the basic metabolic activities pertaining to the catabolism and anabolism of various biomolecules CO5 Describe the key events in early embryonic development starting from the formation of gametes upto gastrulation and formation of primary germ layers..</p> <p>LABORATORY Course outcomes (Practicals): <u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none"> ➤ Identification of an organ system with histological structure ➤ Deducing human health based on the information of composition of blood cells ➤ Demonstration of enzyme activity in vitro ➤ Identification of various biomolecules of tissues by simple colorimetric methods and also quantitative methods ➤ Identification of different stages of earl embryonic development in animals 	
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Fourth Semester

Course V: Immunology and Animal

Biotechnology (Lab-V)

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u> CO1 To get knowledge of the organs of Immune system, types of immunity, cells and organs of immunity. CO2 To describe immunological response as to how it is triggered (antigens) and regulated (antibodies) CO3 Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering. CO4 Get familiar with the tools and techniques of animal biotechnology</p> <p>LABORATORY Outcomes: <u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none"> ➤ Acquainting student with immunological techniques vis-à-vis theory taught in the class room ➤ Interconnect the theoretical and practical knowledge of immunity with the outer world for the development of a healthier life. ➤ Demonstrate basic laboratory skills necessary for Biotechnology research ➤ Promoting application of the lab techniques for taking up research in higher studies 	

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF HISTORY

PROGRAMME OUTCOMES: B.A.

The expected outcome of the program is to give students a multidisciplinary approach that helps them build their social analytical skills and in pursuing multitasking courses and profession.

ATTAINMENT OF COURSE OUTCOMES: HISTORY DEPARTMENT

PROGRAM: H.E.P..

This course has high potential which enables a student to mould according to the career path/ higher studies options at Indian Council for Historical Research, New Delhi, India/National Archives/Good Governance/Centre for Gender Studies and Development.

First Semester

Course I: Ancient Indian History and Culture (Indus valley civilization to 13th century A.D.

Course outcomes	Whether attained
<p><u>Upon successful completion of the course, a student will be able to:</u></p> <ul style="list-style-type: none">➤ Identify and define various kinds of sources and understand how history books are shaped➤ Compare and contrast various stages of progress from IVC to Vedic age and analyze the Jain, Buddhist and Vedic faiths➤ Increase the awareness and appreciation of Transition from Territorial States to Emergence of Empires➤ Analyze the emergence of the Mauryan and Gupta empires during the - classical age in India➤ Evaluate the key facets of ancient society, polity and culture in South India-the Feudalism, and the rise of technology and commerce.➤ Critically examine the nature of monarchic rule and develop an comprehensive understanding of cultural evolution during ancient period➤ Visualize where places are in relation to one another through map pointing	

Second Semester

Course II: Medieval Indian History and Culture (1206 A.D.-1764 A.D)

Course Outcomes	Whether attained
<p><u>Upon successful completion of the course, a student will be able to:</u></p> <ul style="list-style-type: none">➤ Understand the socio, economic and cultural conditions of medieval India➤ Describe the advent of Islam in India and study the traces of political and cultural expansion of Turks & Afghans➤ Explain the Administration and art and architecture of Vijayanagar Rulers, Mughals and also analyse the rise of the Marathas and the contribution of Shivaji➤ Evaluate the establishment of the British rule in India and understand the dangerous consequences disunity at all levels➤ Analyze the emergence of composite culture in Indian➤ Visualize where places are in relation to one another through map pointing	

Third Semester**Course III: Modern Indian History and Culture (1764- 1947 A.D.)**

Course Outcomes	Whether attained
<p><u>On completing the subject, students will be able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Unearth the true nature of the British rule and its disastrous impact on Indian economy and society</i> ➤ <i>Gauge the disillusionment of people against the Company's rule even during the early 19th century</i> ➤ <i>Assess the causes and effects of Reformation movements and also inspire the public to overthrow inequalities of the present day society</i> ➤ <i>Rise above petty parochial issues after understanding the sacrificial saga of freedom Struggle</i> ➤ <i>Evaluate the undercurrent of communal politics that led to India's partition and identify the enemies of India's integrity and sovereignty</i> ➤ <i>Visualize where places are in relation to one another through map pointing</i> 	

Fourth Semester**Course IV: History and Culture of Andhra (1512-1956 A.D.)**

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the students will be able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Interpret social and political and cultural transformation from medieval to modern Andhra</i> ➤ <i>Relate key historical developments during medieval period occurring in coastal Andhra and Telangana regions and analyze socio - political and economic changes under QutbShahi rulers</i> ➤ <i>Understand gradual change, or change in certain aspects of society in Andhra, rather than rapid or fundamental changes</i> ➤ <i>Explain how the English East India Company became the most dominant power and outline the impact of colonial policies on different aspects in Andhra</i> ➤ <i>Outline the issues related to caste, women, widow remarriage, child marriage, social reforms and the laws and policies of colonial administration towards these issues</i> ➤ <i>Take pride in the non-violence struggle for Indian Independence and relate the importance of peace in everyday life</i> ➤ <i>Apply the knowledge of the regional history to understand the regional, linguistic and other cultural aspirations of the present day society</i> ➤ <i>Visualize where places are in relation to one another through map pointing</i> 	

Fourth Semester**Course V: History of Modern World (15th century to 1945 A.D.)**

Course Outcomes	Whether attained
<p><u>On successful completion of this course, the students will be able to:</u></p> <p><i>Demonstrate advanced factual knowledge of world histories, politics, and cultures</i></p> <ul style="list-style-type: none"> ➤ <i>Assess and appraise the developments in art, literature, and society during the Renaissance and utilize content knowledge of the Reformation and Counter Reformation to make predictions about the evolution of Christianity in Europe and Abroad</i> ➤ <i>Evaluate the causes for the Glorious Revolution and American Revolution and identify the background for the evolution of human rights movement</i> 	

<ul style="list-style-type: none">➤ <i>Understand the main events of the French Revolution and its significance in the shift in European culture from Enlightenment to Romanticism</i>➤ <i>Think how Russia's traditional monarchy was replaced with the world's first Communist state.</i>➤ <i>Know how the world wars affected people all over the world and the destruction they caused</i>➤ <i>Develop the intellectual curiosity and habits of thought that will lead to life-long learning and continued engagement with European history, literature, culture, languages, and current affairs and acquire advanced international and intercultural competency through coursework in international studies</i>➤ <i>Visualize where places are in relation to one another through map pointing</i>	
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GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF ECONOMICS

PROGRAMME OUTCOMES: B.A.

The expected outcome of the program is to give students a multidisciplinary approach that helps them build their social analytical skills and in pursuing multitasking courses and profession.

ATTAINMENT OF COURSE OUTCOMES: ECONOMICS DEPARTMENT

PROGRAM: H.E.P..

This course has high potential which enables a student to mould according to the career path/ higher studies options at Indian Council for Historical Research, New Delhi, India /National Archives/Good Governance/Centre for Gender Studies and Development.

First Semester

Course I: Microeconomic Analysis

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

Second Semester

Course II: Macroeconomic Analysis

Course Outcomes	Whether attained
<p><u>At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills:</u></p> <p><u>1. Remembers and states in a systematic way (knowledge)</u></p> <p>a. Various concepts, definitions, laws and principles of macroeconomic theory with reference to income, employment, money, banking and finance</p>	

<p><u>2. Explains (understanding)</u> <i>a. the difference between various concepts and components of national income with illustrations and methods of measuring national income</i> <i>b. various terms, concepts, laws and principles, theories relating to income, employment, consumption, investment, money, price-level and phases of trade cycles</i> <i>c. functions of commercial banks and central bank, creation and control of credit</i></p> <p><u>3. Critically examines using data and figures (analysis and evaluation)</u> <i>a. in order to understand the interrelationship between various components of national income</i> <i>b. the theories of macroeconomics with reference to their assumptions, implications and applicability</i> <i>c. Empirical evidences of Consumption and Investment Functions and factors influencing them</i></p> <p><u>4. Draws critical formulae, diagrams and graph.</u> <i>a. consumption and investment functions; concepts of multiplier and accelerator</i> <i>b. price indices, inflation and trade cycles</i></p>	
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Third Semester

Course III: Development Economics

Course Outcomes	Whether attained
<p><u>At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills:</u></p> <p><u>1. Remembers and states in a systematic way (Knowledge)</u> <i>a. Various concepts and definitions and indicators relating to economic growth and Development including recent developments</i></p> <p><u>2. Explains (understanding)</u> <i>a. Distinction between growth and development with examples</i> <i>b. Characteristics of developing and developing economies and distinction between the two</i> <i>c. factors contributing to development, Choice of Techniques and a few important models and strategies of growth</i></p> <p><u>3. Critically examines using data and figures (analysis and evaluation)</u> <i>a. the theoretical aspects of a few models and strategies of economic growth</i> <i>b. role and importance of various financial and other institutions in the context of India's economic development</i></p> <p><u>4. Draws critical diagrams and graphs</u> <i>a. to explain the models and strategies</i> <i>b. to highlight empirical evidences to support the strategies</i></p>	

Fourth Semester

Course IV: Economic Development- India and Andhra Pradesh

Course Outcomes	Whether attained
<p><u>At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills:</u></p> <p><u>1. Remembers and states in a systematic way (Knowledge)</u> <i>a. leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses</i> <i>b. Objectives, outlays and achievements of economic plans and growth strategies</i></p> <p><u>2. Explains (understanding)</u> <i>a. Available Resources, demographic issues, general problems of poverty and unemployment and relevant policies</i> <i>b. Sector specific problems, remedial policies and their effectiveness relating to Agriculture and Industrial Sectors of Indian and AP economy and</i></p>	

<p>infrastructure issues of AP economy</p> <p>c. Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds</p> <p>d. Major issues of economic development of Andhra Pradesh after bifurcation and Central assistance</p> <p><u>3. Critically examines using data and figures (analysis and evaluation)</u></p> <p>a. Leading issues of current importance relating to India and AP economy, major policies and programmes</p> <p>b. Covid-19 and its impact on Indian economy</p> <p><u>4. Uses official statistical data and reports including tables and graphs</u></p> <p>a. To explain the achievements of Indian economy with reference to the objectives of planning and policy and make critical evaluation</p>	
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Fourth Semester

Course V: Statistical Methods for Economics

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

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF POLITICAL SCIENCE

PROGRAMME OUTCOMES: B.A.

The expected outcome of the program is to give students a multidisciplinary approach that helps them build their social analytical skills and in pursuing multitasking courses and profession.

ATTAINMENT OF COURSE OUTCOMES: POLITICAL SCIENCE DEPARTMENT

PROGRAM: H.E.P..

This course has high potential which enables a student to mould according to the career path/ higher studies options at Indian Council for Historical Research, New Delhi, India /National Archives/Good Governance/Centre for Gender Studies and Development.

First Semester

Course I: Introduction to Political Science

Course Outcomes	Whether attained
<p><u>On successful completion of the course the students will be able to:</u></p> <ul style="list-style-type: none"><input type="checkbox"/> Recall the previous knowledge about Political Science and understand the nature and scope, traditional and modern approaches of Political Science.<input type="checkbox"/> Understand concepts intrinsic to the study of Political Science.<input type="checkbox"/> Have solid theoretical understanding of Rights and its theories along with the basic aspects of certain political ideologies.<input type="checkbox"/> Apply the knowledge to observe the field level phenomena	

Second Semester

Course II: Basic Organs of the Government

Course Outcomes	Whether attained
<p><u>On successful completion of the course the students will be able to:</u></p> <ul style="list-style-type: none"><input type="checkbox"/> Understand the Origin and Evolution of the concept of Constitutionalism and classification of Constitutions.<input type="checkbox"/> Acquaint themselves with different theories of origin of State.<input type="checkbox"/> Understand and analyses organs and forms of Governments along with a deep insight into the various agents involved in the political process.<input type="checkbox"/> Apply the knowledge to analyse and evaluate the existing systems	

Third Semester

Course III: Indian Government and Politics

Course Outcomes	Whether attained
<p><u>On successful completion of the course the students will be able to:</u></p> <ul style="list-style-type: none"><input type="checkbox"/> Acquire knowledge about the historical background of Constitutional development in India, appreciate philosophical foundations and salient features of the Indian Constitution.<input type="checkbox"/> Analyze the relationship between State and individual interms of Fundamental Rights and Directive Principles of State Policy.	

<input type="checkbox"/> <i>Understand the composition of and functioning of Union Government as well as State Government and finally</i> <input type="checkbox"/> <i>Acquaint themselves with the judicial system of the country and its emerging trends such as judicial reforms.</i>	
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Fourth Semester

Course IV: Indian Political Process

Course Outcomes	Whether attained
<p><u>On successful completion of the course the students will be able to:</u></p> <input type="checkbox"/> <i>Know and understand the federal system of the country and some of the vital contemporary emerging issues.</i> <input type="checkbox"/> <i>Evaluate the electoral system of the country and to identify the areas of electoral reforms.</i> <input type="checkbox"/> <i>Know the constitutional base and functioning of local governments with special emphasis on 73rd& 74th Constitutional Amendment Acts.</i> <input type="checkbox"/> <i>Understand the dynamics of Indian politics, challenges faced and gain a sensitive comprehension to the contributing factors.</i> <input type="checkbox"/> <i>Apply the knowledge and critically comprehend the functioning of some of the regulatory and governance institutions.</i> <input type="checkbox"/> <i>Propose theoretical outline alternate models</i>	

Fourth Semester

Course V: Western Political Thought

Course Outcomes	Whether attained
<p><u>On successful completion of the course the students will be able to:</u></p> <input type="checkbox"/> <i>Understand the fundamental contours classical, western political philosophy, basic features of medieval political thought and shift from medieval to modern era.</i> <input type="checkbox"/> <i>Understand the Social Contract Theory and appreciate its implications on the perception of State in terms of its purposes and role.</i> <input type="checkbox"/> <i>Acquaint with the Liberal and Marxist philosophy and analyze some trends in Western Political Thought.</i> <input type="checkbox"/> <i>Critically analyse the evolution of western political thought</i>	

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF COMMERCE

PROGRAMME OUTCOMES: B.Com (General):

Develop an understanding of various commerce functions such as Finance, Accounting, Financial analysis, project evaluation, and cost accounting.

Have global exposure of complex commerce problems and find their solution, process information by effective use of IT tools.

Develop self-confidence and awareness of general issues prevailing in the society.

ATTAINMENT OF COURSE OUTCOMES: COMMERCE DEPARTMENT

First Semester

Course I A: Fundamentals of Accounting

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none">➤ <i>Identify transactions and events that need to be recorded in the books of accounts.</i>➤ <i>Equip with the knowledge of accounting process and preparation of final accounts of sole trader.</i>➤ <i>Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.</i>➤ <i>Analyze the difference between cash book and pass book in terms of balance and make reconciliation.</i>➤ <i>Critically examine the balance sheets of a sole trader for different accounting periods.</i>➤ <i>Design new accounting formulas & principles for business organisations</i>	

First Semester

Course I B: Business Organization and Management

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will be able to:</u></p> <ul style="list-style-type: none">➤ <i>Understand different forms of business organizations.</i>➤ <i>Comprehend the nature of Joint Stock Company and formalities to promote a Company.</i>➤ <i>Describe the Social Responsibility of Business towards the society.</i>➤ <i>Critically examine the various organizations of the business firms and judge the best among them.</i>➤ <i>Design and plan to register a business firm. Prepare different documents to register a company at his own.</i>➤ <i>Articulate new models of business organizations.</i>	

First Semester

Course I C: Business Environment

Course Outcomes	Whether attained
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<p><u>At the end of the course, the student will able to;</u></p> <ul style="list-style-type: none"> ➤ <i>Understand the concept of business environment.</i> ➤ <i>Define Internal and External elements affecting business environment.</i> ➤ <i>Explain the economic trends and its effect on Government policies.</i> ➤ <i>Critically examine the recent developments in economic and business policies of the Government.</i> ➤ <i>Evaluate and judge the best business policies in Indian business environment.</i> ➤ <i>Develop the new ideas for creating good business environment.</i> 	
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Second Semester

Course II A: Financial Accounting

Course Outcomes	Whether attained
<p><u>At the end of the course the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Understand the concept of consignment and learn the accounting treatment of the various aspects of consignment.</i> ➤ <i>Analyze the accounting process and preparation of accounts in consignment and joint venture.</i> ➤ <i>Distinguish Joint Venture and Partnership and to learn the methods of maintaining records under Joint Venture.</i> ➤ <i>Determine the useful life and value of the depreciable assets and maintenance of Reserves in business entities.</i> ➤ <i>Design an accounting system for different models of businesses at his own using the principles of existing accounting system.</i> 	

Second Semester

Course II B: Business Economics

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Describe the nature of economics in dealing with the issues of scarcity of resources.</i> ➤ <i>Analyze supply and demand analysis and its impact on consumer behaviour.</i> ➤ <i>Evaluate the factors, such as production and costs affecting firms behaviour.</i> ➤ <i>Recognize market failure and the role of government in dealing with those failures.</i> ➤ <i>Use economic analysis to evaluate controversial issues and policies.</i> ➤ <i>Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business.</i> 	

Second Semester

Course II C: Banking Theory and Practice

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Understand the basic concepts of banks and functions of commercial banks.</i> ➤ <i>Demonstrate an awareness of law and practice in a banking context.</i> 	

<ul style="list-style-type: none"> ➤ Engage in critical analysis of the practice of banking law. ➤ Organize information as it relates to the regulation of banking products and services. ➤ Critically examine the current scenario of Indian Banking system. ➤ Formulate the procedure for better service to the customers from various banking innovations. 	
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Third Semester

Course III A: Advanced Accounting

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ Understand the concept of Non-profit organisations and its accounting process ➤ Comprehend the concept of single-entry system and preparation of statement of affairs ➤ Familiarize with the legal formalities at the time of dissolution of the firm ➤ Prepare financial statements for partnership firm on dissolution of the firm. ➤ Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership 	

Third Semester

Course III B: Business Statistics

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ Understand the importance of Statistics in real life ➤ Formulate complete, concise, and correct mathematical proofs. ➤ Frame problems using multiple mathematical and statistical tools, measuring relationships by using standard techniques. ➤ Build and assess data-based models. ➤ Learn and apply the statistical tools in day life. ➤ Create quantitative models to solve real world problems in appropriate contexts 	

Third Semester

Course III C: Marketing

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ Develop an idea about marketing and marketing environment. ➤ Understand the consumer behaviour and market segmentation process. ➤ Comprehend the product life cycle and product line decisions. ➤ Know the process of packaging and labelling to attract the customers. ➤ Formulate new marketing strategies for a specific new product. ➤ Develop new product line and sales promotion techniques for a given product. ➤ Design and develop new advertisements to given products 	

Fourth Semester**Course IV A: Corporate Accounting**

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Understand the Accounting treatment of Share Capital and aware of process of book building.</i> ➤ <i>Demonstrate the procedure for issue of bonus shares and buyback of shares.</i> ➤ <i>Comprehend the important provisions of Companies Act, 2013 and prepare final accounts of a company with Adjustments.</i> ➤ <i>Participate in the preparation of consolidated accounts for a corporate group.</i> ➤ <i>Understand analysis of complex issues, formulation of well-reasoned arguments and reaching better conclusions.</i> ➤ <i>Communicate accounting policy choices with reference to relevant laws and accounting standards.</i> 	

Fourth Semester**Course IV B: Cost and Management Accounting**

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Understand various costing methods and management techniques.</i> ➤ <i>Apply Cost and Management accounting methods for both manufacturing and service industry.</i> ➤ <i>Prepare cost sheet, quotations, and tenders to organization for different works.</i> ➤ <i>Analyze cost-volume-profit techniques to determine optimal managerial decisions.</i> ➤ <i>Compare and contrast the financial statements of firms and interpret the results.</i> ➤ <i>Prepare analysis of various special decisions, using relevant management techniques.</i> 	

Fourth Semester**Course IV C: Income Tax**

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Acquire the complete knowledge of the tax evasion, tax avoidance and tax planning.</i> ➤ <i>Understand the provisions and compute income tax for various sources.</i> ➤ <i>Grasp amendments made from time to time in Finance Act.</i> ➤ <i>Compute total income and define tax complications and structure.</i> ➤ <i>Prepare and File IT returns of individual at his own.</i> 	

Fourth Semester**Course IV D: Business Law**

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p>	

<ul style="list-style-type: none"> ➤ <i>Understand the legal environment of business and laws of business.</i> ➤ <i>Highlight the security aspects in the present cyber-crime scenario.</i> ➤ <i>Apply basic legal knowledge to business transactions.</i> ➤ <i>Understand the various provisions of Company Law.</i> ➤ <i>Engage critical thinking to predict outcomes and recommend appropriate action on issues relating to business associations and legal issues.</i> ➤ <i>Integrate concept of business law with foreign trade.</i> 	
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Fourth Semester

Course IV E: Auditing

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Understanding the meaning and necessity of audit in modern era</i> ➤ <i>Comprehend the role of auditor in avoiding the corporate frauds</i> ➤ <i>Identify the steps involved in performing audit process</i> ➤ <i>Determine the appropriate audit report for a given audit situation</i> ➤ <i>Apply auditing practices to different types of business entities</i> ➤ <i>Plan an audit by considering concepts of evidence, risk and materiality</i> 	

Fourth Semester

Course IV F: Goods and Service Taxes

Course Outcomes	Whether attained
<p><u>At the end of the course, the student will able to:</u></p> <ul style="list-style-type: none"> ➤ <i>Understand the basic principles underlying the Indirect Taxation Statutes.</i> ➤ <i>Examine the method of tax credit. Input and Output Tax credit and Cross Utilisation of Input Tax Credit.</i> ➤ <i>Identify and analyze the procedural aspects under different applicable statutes related to GST.</i> ➤ <i>Compute the assessable value of transactions related to goods and services for levy and determination of duty liability.</i> ➤ <i>Develop various GST Returns and reports for business transactions in Tally.</i> 	

GOVERNMENT DEGREE COLLEGE, NARSIPATNAM

DEPARTMENT OF ENGLISH

First Semester

Course I: A Course in Communication and Soft Skills

Course Outcomes	Whether attained
<p><u>By the end of the course the learner will be able to:</u></p> <ul style="list-style-type: none"><input type="checkbox"/> Use grammar effectively in writing and speaking.<input type="checkbox"/> Demonstrate the use of good vocabulary<input type="checkbox"/> Demonstrate an understating of writing skills<input type="checkbox"/> Acquire ability to use Soft Skills in professional and daily life.<input type="checkbox"/> Confidently use the tools of communication skills	

Second Semester

Course II: A Course in Reading and Writing Skills

Course Outcomes	Whether attained
<p><u>By the end of the course the learner will be able to:</u></p> <ul style="list-style-type: none"><input type="checkbox"/> Use reading skills effectively<input type="checkbox"/> Comprehend different texts<input type="checkbox"/> Interpret different types of texts<input type="checkbox"/> Analyse what is being read<input type="checkbox"/> Build up a repository of active vocabulary<input type="checkbox"/> Use good writing strategies<input type="checkbox"/> Write well for any purpose<input type="checkbox"/> Improve writing skills independently for future needs	

Third Semester

Course III: A Course in Conversational Skills

Course Outcomes	Whether attained
<p><u>By the end of the course the learner will be able to:</u></p> <ul style="list-style-type: none"><input type="checkbox"/> Speak fluently in English<input type="checkbox"/> Participate confidently in any social interaction<input type="checkbox"/> Face any professional discourse<input type="checkbox"/> Demonstrate critical thinking<input type="checkbox"/> Enhance conversational skills by observing the professional interviews	


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