బి.ఏ., బి.కాం., బి.యస్‌సి., తదితర ప్రోగ్రాములు

అంశం: జనరల్ తెలుగు సెమిస్టర్-1

కోర్సు-1 : ప్రాచీన తెలుగు కవిత్వం

యూనిట్ల సంఖ్య: 5 పీరియడ్ల సంఖ్య: 60

✦ **అభ్యసన ఫలితాలు:-**

ఈ కోర్సు విజయవంతంగా ముగించాక, విద్యార్థులు క్రింది అభ్యసన ఫలితాలను పొందగలరు.

1. ప్రాచీన తెలుగుసాహిత్యం యొక్క ప్రాచీనతను, విశిష్టతను గుర్తిస్తారు. తెలుగుసాహిత్యంలో ఆదికవి నన్నయ కాలంనాటి భాషాసంస్కృతులను, ఇతిహాసకాలం నాటి రాజనీతి విషయాలపట్ల పరిజ్ఞానాన్ని సంపాదించగలరు.

2. శివకవుల కాలంనాటి మతపరిస్థితులను, భాషావిశేషాలను గ్రహిస్తారు. తెలుగు నుడికారం, సామెతలు, లోకోక్తులు మొదలైన భాషాంశాల పట్ల పరిజ్ఞానాన్ని పొందగలరు.

3. తిక్కన భారతంనాటి మత, ధార్మిక పరిస్థితులను, తిక్కన కవితాశిల్పాన్ని, నాటకీయతను అవగాహన చేసుకోగలరు.

4. ఎఱ్ఱన సూక్తివైచిత్రిని, ఇతిహాస కవిత్వంలోని విభిన్న రీతులపట్ల అభిరుచిని పొందగలరు. శ్రీనాథుని కాలం నాటి కవితావిశేషాలను, మొల్ల కవితా విశిష్టతను గుర్తించగలరు.

5. తెలుగు పద్యం స్వరూప-స్వభావాలను, సాహిత్యాభిరుచిని పెంపొందించుకుంటారు. ప్రాచీన కావ్యభాషలోని వ్యాకరణాంశాలను అధ్యయనం చేయడం ద్వారా భాషాసామర్థ్యాన్ని, రచనలో మెళకువలను గ్రహించగలరు.

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అంశం: జనరల్ తెలుగు సెమిస్టర్–2

కోర్సు–2 : ఆధునిక తెలుగు సాహిత్యం

యూనిట్ల సంఖ్య:5 **పీరియడ్ల సంఖ్య:60**

✦ **అభ్యసన ఫలితాలు:–**

ఈ కోర్సు విజయవంతంగా ముగించాక, విద్యార్థులు క్రింది అభ్యసన ఫలితాలను పొందగలరు.

1. ఆంగ్లభాష ప్రభావం కారణంగా తెలుగులో వచ్చిన ఆధునిక సాహిత్యాన్ని, దాని విశిష్టతను గుర్తిస్తారు.
2. సమకాలీన ఆధునిక సాహిత్య ప్రక్రియలైన "వచన కవిత్వం, కథ, నవల, నాటకం, విమర్శ" లపై అవగాహన పొందుతారు.
3. భావకవిత, అభ్యుదయ కవితాలక్ష్యాలను గూర్చిన జ్ఞానాన్ని పొందుతారు.అస్తిత్వవాద ఉద్యమాలపుట్టుకను, ఆవశ్యకతను గుర్తిస్తారు.
4. కథాసాహిత్యం ద్వారా సామాజిక చైతన్యాన్ని పొందుతారు. సిద్ధాంతాల ద్వారా కాకుండా, వాస్తవ పరిస్థితులను తెలుసుకోవడం ద్వారా సిద్ధాంతాన్ని సమీక్షించగలరు.
5. ఆధునిక తెలుగు కల్పనాసాహిత్యం ద్వారా సామాజిక, సాంస్కృతిక,రాజకీయ చైతన్యాన్ని పొందుతారు.

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అంశం: జనరల్ తెలుగు సెమిస్టర్-3
కోర్సు-3 : సృజనాత్మక రచన

యూనిట్ల సంఖ్య:5 **పీరియడ్ల సంఖ్య:60**

✦ **అభ్యసన ఫలితాలు:-**

ఈ కోర్సు విజయవంతంగా ముగించాక, విద్యార్థులు క్రింది అభ్యసన ఫలితాలను పొందగలరు.

1. తెలుగు సాహిత్య అభ్యసన ద్వారా నేర్చుకున్న నైపుణ్యాలను, సృజనాత్మక నైపుణ్యాలుగా మార్చుకోగలరు.

2. విద్యార్థులు భాషాతత్వాన్ని, భాష యొక్క ఆవశ్యకతను, భాష యొక్క ప్రాధాన్యాన్ని గుర్తిస్తారు. మనిషి వ్యక్తిగత జీవనానికి, సామాజికవ్యవస్థ పటిష్టతకు భాష ప్రధానమని తెలుసుకుంటారు. తెలుగుభాషలోని కీలకాంశాలైన 'వర్ణం-పదం-వాక్యా'ల ప్రాధాన్యాన్ని గుర్తిస్తూ, వాగ్రూప-లిఖితరూప వ్యక్తీకరణ ద్వారా భాషానైపుణ్యాలను మెరుగుపరచుకోగలరు.

3. భాషానైపుణ్యాలను అలవరచుకోవడంతోపాటు వినియోగించడం నేర్చుకుంటారు. రచనా, భాషణానైపుణ్యాలను సృజనాత్మక రూపంలో వ్యక్తీకరించగలరు.

4. ప్రాచీన పద్యరచనతో పాటు ఆధునిక కవిత, కథ, వ్యాసం, మొదలైన సాహిత్యప్రక్రియల నిర్మాణాలకు సంబంధించిన సిద్ధాంతవిషయాలను నేర్వడంతో పాటు వారిలో రచనా నైపుణ్యాలను పెంపొందించుకోగలరు.

5. సృజన రంగం, ప్రసారమాధ్యమ రంగాల్లో ఉపాధి అవకాశాలను అందిపుచ్చుకోగలరు.

6. అనువాద రంగంలో నైపుణ్యం సంపాదించగలరు.

Course Outcomes

Chemistry

Course I (Inorganic & Physical Chemistry)

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

1.Understand the basic concepts of p-block elements.

2.Explain the difference between solid, liquid and gases in terms of inter molecular interactions.

3.Apply the concepts of gas equations, pH and electrolytes while studying other chemistry courses.

Course II – (Organic & General Chemistry)

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

1.Understand and explain the differential behaviour of organic compounds based on fundamental concepts learnt.

2.Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.

3.Learn and identify many organic reaction mechanisms including Free Radical Substitution, Electrophilic Addition and Electrophilic Aromatic Substitution.

4.Correlate and describe the stereo chemical properties of organic compounds and reactions.

Course III – (Inorganic & Organic Chemistry)

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

1.Understand preparation, properties and reactions of haloalkanes, haloarenes and oxygen containing functional groups.

2.Use the synthetic chemistry learnt in this course to do functional group transformations.

3.To propose plausible mechanisms for any relevant reaction.

Course IV – (Spectroscopy &Physical Chemistry)

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

1.Learn about the laws of absorption of light energy by molecules and the subsequent photochemical reactions.

2.Understand the concept of quantum efficiency and mechanisms of photochemical reactions.

Course V – (Inorganic, Organic & Physical Chemistry)

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

1.Understand concepts Of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation values.

2.Application of quantization to spectroscopy.

3.Various types of spectra and its use in structure determination.

Course VI – (Inorganic, Organic & Physical Chemistry)

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

1.Understand concepts of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation values.

2.Application of quantization to spectroscopy.

3.Various types of spectra and its use in structure determination.

4.Understand and explain the differential behaviour of organic compounds based on fundamental concepts learnt.

Course VII Elective – (Analytical Methods in Chemistry)

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

1.Compare qualitative and quantitative analysis.

2.Expresses the quantitative analysis methods.

3.Evaluate the analytical data in terms of statistics.

4.Evaluates the effects of systematic errors on analytical results.

5.Interpret the sources of random errors and effects of random errors on analytical results.

6.Define the general properties of volumetry.

7.Identifies the solubility by the systematic method.

Course VIII Cluster 1 – (Organic Spectroscopic Techniques)

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

1.Recognize spectroscopy in microwave, Rotational spectra of rigid diatomic molecules, selection rules, interaction of spectral lines .

2.Study of Vibrating diatomic molecule, energy levels of a diatomic molecule, simple harmonic and anharmonic oscillator, Scattering of light and Raman Spectrum. rotational and vibrational Raman Spectra.

3.Learn Electronic spectra of diatomic molecules Born-oppenheimer approximation .
4.Make Students aware of the fine structure of ESR absorption, Hyperfine structure, Double resonance in ESR, Techniques of ESR spectroscopy.
5.Understand Principles and Applications of Mossbauer spectroscopy.
6.Understand concepts of Nuclear and Radiation Chemistry. Applications of Radioisotopes.

Course VIII Cluster 2 – (Organic Advanced Reactions)
1.Acquire applicative knowledge of new techniques and concepts in organic synthesis

Course VIII Cluster 3 – (Pharmaceutical and Medicinal Chemistry)
1.The Discuss drug discovery and design with respect to the lead molecules and its Optimization.
2.To impart fundamental knowledge on the structure, chemistry and therapeutic value of drugs. Understand the chemistry of drugs with respect to their pharmacological activity.
3.The subject emphasizes on structure activity relationships of drugs, importance of physicochemical properties, absorbtion, distribution, metabolism and Pharmacodynamics of drugs.
4.To know the mechanism of chiral drug action, the synthesis and pharmacological activity of some selective chiral drugs .
5.Applicative knowledge of synthetic medicinal products in development of newer drugs and importance of Pharmacokinetics & pharmacodynamics of drugs.

History

B.A Semester I / I year Ancient Indian History & Culture (From Indus valley to 13th CAD) :-
1.To Identify and understand the sources of various periods to reconstruct Indian History.
2.Compare and contrast various stages of progress from IVC to Vedic age and analyze the Jain, Buddhist and Vedic faiths.
3.Increase the awareness and appreciation of Transition from Territorial States to Emergence of Empires.
4.Analyse the emergence of Mouryan and Gupta Empires during the classical age of India.
5.Evaluate the key facets of ancient society, polity and culture in South India—the feudalism, and the rise of technology and commerce .
6.Critically examine the nature of monarchic rule and develop an comprehensive

understanding of cultural evolution during ancient period.

B.A, Semester II / I year Medieval Indian History & Culture (From 1206 to 1764 A.D):-

1.Understand the socio, economic and cultural conditions of medieval India.

2.Describe the advent of Islam in India and study the traces of political and cultural expansion of Turks & Afghans.

3.ExplaintheAdministrationandartandarchitectureofVijayanagarRulers,Mughals.

4.And also analyse the rise of the Marathas and the contribution of Shivaj.

5.Evaluate the establishment of the British rule in India and understand the dangerous consequences disunity at all level.

6.Analyze the emergence of composite culture in India.

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

B.A, Semester III / 2 year Modern India History and culture (From 1764 -1947A.D):-

1.Unearth the true nature of the British rule and its disastrous impact on Indian Economy and society.

2.Gauge the dis illusionment of people against the Company's rule even during the Early 19 th century.

3.Assess the causes and effects of Reformation movements and also inspire the public to over throw in equalities of the present day society.

4.Rise above petty parochial issues after understanding the sacrificial age of freedom struggle.

5.Evaluate the under current of communal politics that led to India's partition and Identify the enemies of India's integrity and sovereignty.

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

B.A, Semester IV / 2 year History of Andhra (From 1512-1956 AD):-

1.Interpret social and political and cultural transformation from medieval to Modern Andhra.

2.Relate key historical developments during medieval period occurring in coastal Andhra and Telangana regions and analyze socio-political and Economic changes under Qutb Shahi rulers.

3.Understand gradual change ,or change in certain aspects of society in Andhra, rather than rapid or fundamental changes.

4.Explain how the English East India Company became the most dominant Power and out

line the impact of colonial policies on different aspects in Andhra.
5.Outline the issues related to caste, women, widow remarriage, child marriage, social reforms and the laws and policies of colonial administration towards these issues.
6.Take pride in the non-violence struggle for Indian Independence and relate the importance of peace in every day life.
7.Apply the knowledge of the regional history to understand the regional,Linguistic and other cultural aspirations of the present day society.
8.Visualize where places are in relation to one another through map pointing.

B.A , Semester IV / 2 year

History of modern World 15th& C. to 1945AD)
Demonstrate advanced factual knowledge of world histories, politics .
CO1: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.
CO2:Evaluate the causes for the Glorious Revolution and American Revolution and Identify the background for the evolution of human rights movement.
CO3:Understand the main events of the French Revolution and its significance in the shift In European culture from Enlightenment to Romanticism.
CO4:Think how Russia's traditional monarchy was replaced with the world's first Communist state.
CO5:Know how the world wars affected people all over the world and the destruction they caused
CO6: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 course work in international studies.
CO7:Visualize where places are in relation to one another through map pointing.

B.A ,Semester V / 3 year

Course 6A :- Archival Sources and Techniques,(Skill Enhancement Course)
CO1: Understand the archival sources and techniques as professional tools.
CO2:Identifytheintellectualandphysicalcontentinhistoricalsitesandrecords.
CO3:Develop the ability to preserve and create access for a historic record.

CO4:Recognize the importance of archives in history writing.Manage, budget and implement projects.

B.A, Semester V/ 3 year

Course 7A:Techniques of History Writing(Skill Enhancement Course)

CO1:Understandthemeaningofhistory,scopeandvariousconceptsinhistoricalwritings

CO2:Identify various historical sources for writing history of a person / event /place/organization/monument/etc.

CO3:Understand the different ways to organize sources and interpretation

CO4:Summarize the changing ideas and approaches to a particular topic of history.

CO5:Learn skills related to choosing and writing of a comprehensive history of a small unit.

B.A, Semester V/ 3 year Course 6B:Tourism and Hospitality Services(Skill Enhancement Course)

CO1:Understand hospitality as a career

CO2:Inculcate inter personal skills

CO3:Develop the ability for multitasking and crisis management

CO4:Understands the spirit of teamwork

B.A, Semester V/ 3 year

Course 7B:Tourism Guidance and Operating Skills(Skill Enhancement Course)

CO1:Acquire tour guiding, operating and soft skills

CO2:Understand different situations under which one has to work

CO3:Cultivate cultural awareness and flexibility

CO4:Understand and apply team spirit

CO5:Plan and organize tour operations efficiently

B.A, Semester V/ 3year

Course 6C:Journalistic Reporting and Editing Techniques(Skill Enhancement Course)

CO1:Gauge the significance of Report Writing

CO2:Understand the principles and techniques of Reporting

CO3:Know the types of news sources and qualities of a Reporter

CO4:Identity the role of Sub Editor and Editor

CO5:Critically analyze the challenges in reporting and editing technique

B.A, Semester V / 3 year

Course 7C:Evolution of Telugu Cinema and Script Writing(Skill Enhancement Course)

CO1:Understand the evolution of Telugu cinema and major changes from past to present

CO2:Assess the role of Telugu cinema makers and their contribution

CO3:Identify various cinema studios and film institutions

CO4:Learn skills and techniques of cinema script writing

Mathematics

COURSE I : DIFFERENTIAL EQUATIONS

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

CO 1. Solve linear differential equations

CO2. Convert non exact homogeneous equations to exact differential equations by using integrating factors.

CO3. Know the methods of finding solutions of differential equations of the first order but not of the first degree.

CO4. Solve higher-order linear differential equations, both homogeneous and non homogeneous, with constant coefficients.

CO5.Understand the concept and apply appropriate methods for solving differential equations.

COURSE II : ANALYTICAL SOLID GEOMETRY

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

CO 1. Get the knowledge of planes.

CO 2. Basic idea of lines, sphere and cones.

CO 3. Understand the properties of planes, lines, spheres and cones. CO4. Express the problems geometrically and then to get the solution.

COURSE III : ABSTRACT ALZEBRA

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

CO 1. Acquire the basic knowledge and structure of groups, subgroups and cyclic groups.

CO 2. Get the significance of the notation of a normal subgroups.

CO 3. Get the behaviour of permutations and operations on them.

CO 4. Study the homomorphisms and isomorphisms with applications.
CO5. Understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems.
CO 6. Understand the applications of ring theory in various fields.

COURSE IV : REAL ANALYSIS (PAPER-4)

Course Outcomes: After successful completion of this course, the student will be able to
CO 1. Get clear idea about the real numbers and real valued functions.
CO 2. Obtain the skills of analyzing the concepts and applying appropriate methods for testing convergence of a sequence/series.
CO3. Test the continuity and differentiability of a function.
CO 4. know the geometrical interpretation of mean value theorems.
CO 5. Get the knowledge about Riemann integration of a function.

COURSE V : RING THEORY & VECTOR CALCULUS: (PAPER 5)

Course Outcomes:After successful completion of this course, the student will be able to;
CO 1. Understand the concepts of rings and their properties.
CO 2. Understand the concepts of homomorphism, kernel, maximal ideals and their properties.
CO3. Will get the knowledge of differentiable operators gradient,divergence curl operators and their formulas.
CO4. Learn the concept of line integral, surface integral, volume integrals with examples.
CO5: Analyse the theorems of Gauss Stokes Greens theorem in plane and applications.

COURSE VI : LINEAR ALGEBRA: (PAPER 6)

Course Outcomes:After successful completion of this course, the student will be able to
CO 1. Understand the concepts of vector spaces, subspaces, basises, dimension and their properties.
CO 2. Understand the concepts of linear transformations and their properties.
CO3. Apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods

CO4 . learn the properties of inner product spaces and determine orthogonality in inner product spaces.

COURSE VII: NUMERICAL ANALYSIS(PAPER VII)

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

CO1: Ability to find solutions for algebraic equations, and ordinary differential equations.

CO2: calculating the errors and approximations in numerical methods.

CO3: Analysis of finite differences for equal intervals and unequal intervals

CO4: Solve an algebraic or transcendental equation using an appropriate numerical methods.

CO5: Analysis of finite differences for unequal intervals.

Physics

Course I: Mechanics,Waves & Oscillations

CO 1: 1. 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.

2. Understand postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence.

3. 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.

CO 2:Apply the rotational kinematic relations, the principle and working of gyroscope and its applications and the precessional motion of a freely rotating symmetric top.

CO 3: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.

CO 4: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.

CO 5: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.

Course II: Wave Optics

CO 1: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.

CO 2: Distinguish between Fresnel's diffraction and Fraunhoffer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating.

CO 3: Describe the construction and working of zone plate and make the comparison of zone plate with convex lens.

CO 4: Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.

CO 5: Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields.

CO 6: Explain about the different aberrations in lenses and discuss the methods of minimizing them.

CO 7: Understand the basic principles of fibre optic communication and explore the field of Holography and Nonlinear optics and their applications.

Course III: Heat & Thermodynamics

CO 1: Understand the basic aspects of kinetic theory of gases, Maxwell-Boltzmann distribution law, equipartition of energies, mean free path of molecular collisions and the transport phenomenon in ideal gases.

CO 2: 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.

CO 3: Understand the working of Carnot's ideal heat engine, Carnot cycle and its efficiency.

CO 4: Develop critical understanding of concept of Thermodynamic potentials, the formulation of Maxwell's equations and its applications.

CO 5: Differentiate between principles and methods to produce low temperature and liquefy air and also understand the practical applications of substances at low temperatures.

CO 6: Examine the nature of black body radiations and the basic theories.

Course-IV: ELECTRICITY, MAGNETISM AND ELECTRONICS

CO 1: 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.
CO 2: Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances.
CO 3: Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents.
CO 4: Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves.
CO 5: Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q- factor, Power factor and the comparative study of series and parallel resonant circuits.
CO 6: Describe the operation of p-n junction diodes, Zener diodes, light emitting diodes and transistors.
CO 7: Understand the operation of basic logic gates and universal gates and their truth tables.

Course-V: MODERN PHYSICS

On successful completion of this course, the students will be able to:
CO 1: Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum mechanics and nuclear physics.
CO 2: Develop critical understanding of concept of Matter waves and Uncertainty principle.
CO 3: Get familiarized with the principles of quantum mechanics and the formulation of Schrodinger wave equation and its applications.
CO 4: Examine the basic properties of nuclei, characteristics of nuclear forces, salient features of nuclear models and different nuclear radiation detectors.
CO 5: Increase the awareness and appreciation of superconductors and their practical applications.

Elective Paper –VII-C: Renewable Energy

On successful completion of the course, the students will be able to attain CO:
CO 1: Understand the need of energy conversion and the various methods of energy storage
CO 2: Explain the field applications of solar energy
CO 3: Identify Winds energy as alternate form of energy and to know how it can be tapped.
CO 4: Explain bio gas generation and its impact on environment.
CO 5: Understand the Geothermal &Tidal energy, its mechanism of production and its

Applications.

Elective Paper –VIII-C-1: Solar Thermal and Photovoltaic Aspects

After studying this course, you should be able to: 1.Explain the principles that underlie the ability of various natural phenomena to deliver solar energy.

2.Outline the technologies that are used to harness the power of solar energy.

3.Discuss the positive and negative aspects of solar energy in relation to natural and human aspects of the environment.

Cluster Elective Paper –VIII-C-2: Wind, Hydro and Ocean Energies

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

CO 1: Conceptual knowledge of the technology, economics and regulation related issues associated with wind and alternative sources of energy.

CO 2: Ability to analyse the viability of wind and alternative energy projects.

CO 3: Capability to integrate various options and assess the business and policy environment regarding wind and alternative energy projects.

CO 4: Advocacy of strategic and policy recommendations on usage of wind and alternative energy.

Aqua Culture

BIOLOGY OF FIN FISH & SHELL FISH

CO 1: 1. By the end of the course the student have good knowledge in Taxonomy, Morphology & Physiology of Fin fish & Shell fish. 2. Knowledge on the basic taxonomy tools for the identification of fin &shell fishes will be learnt by the student.

BASIC PRINCIPLES OF AQUACULTURE

CO 2: 1. To study this course the student will be equipped with the aquatic ecosystem 2. Knowledge on the pond ecosystem will be learnt by the student. 3. Knowledge on the cultivable fishes learnt by the student.

FRESH WATER & BRACKISHWATER AQUACULTURE

CO 3: 1 At the end of the course the student can able to gain the knowledge on the fresh water practices 2 Student learn Culture systems 3 Student learn Brackish water culture practice.

SEMESTER – II

CAPTURE FISHERY

CO 1: To understand about the different types of Reservoir fisheries in India with special reference to status of Reservoir fisheries in Andhra Pradesh. To understand about Estuarine fisheries, their origin and classification present in India with special reference to Andhra Pradesh To understand the taxonomy, food, feeding habits, reproduction, craft and gears used in the fishery of Indian Oil Sardine, Mackerel, Ribbon fishes, Seer fishes and utilization To understand the taxonomy, food, feeding habits, reproduction, craft and gears used in the fishery of Elasmobranchs, Bombay duck, Pomfrets, Prawns, Crabs, Molluscs and their population dynamics.

FISH NUTRITION & FEED TECHNOLOGY

co:2 1. Describe the nutritional requirements of cultivable fishes 2. Explain the different types of feed and feeding methods of fish 3. Describe the techniques of fish feed manufacturing and storage methods 4. Explain the concept of fish feed additives, non nutrient ingredients. 5. Describe the different nutritional deficiency symptoms of fish

FISH HEALTH MANGEMENT

co:3 1. Describe the diseases of fin fish 2. Explain the diseases of shell fish 3. Describe the fish health management strategies 4. Explain different fisheries economic policies 5. Describe the various schemes for the welfare of fishermen community

Semester-III

co:1 Hatchery Technology in Aquatic organisms 2.Knowledge on the biology and biological cycle of the brackish water & marine cultivable specieswill be learnt. 3.Knowledge on the brackish water culture practices will be learnt bythe student. 4.Knowledge on the Mari culture will be learnt by the student.

Fishing Methods

co:2 1. Student will learn the knowledge on the crafts. 2. Mechanism involved in the operation of the fishing gear will be learnt by the student. 3. Tools for the identification of 4. fishery resources will be learnt by the student.

FISH PROCESSING TECHNOLOGY

co:3 Student will learn the knowledge on the Procesing. ¬ Mechanism involved in the operation of the fishing Procesing will be learnt by the student. ¬ Tools for the identification of fishery resources will be learnt by the student.

Semester-IV

ORNAMENTAL FISHERIES co:1 ¬ Student will learn the knowledge on the fishs. ¬ Mechanism involved in the operation of the construction of tanks will be learnt by the student. ¬ Tools for the identification of fishery resources will be learnt by the student.

FISHERIES EXTENSION, ECONOMICS & MARKETING

co:2 ¬ Student will learn the knowledge on the extensions. ¬ marketing involved in the operation of the fishing will be learnt by the student. ¬ Tools for the identification of fishery resources will be learnt by the student.

LARVAL NUTRITION AND CULTURE OF FISH FOOD ORGANISMS

co:3 ¬ Student will learn the knowledge on the natural and artificial food. ¬ Natural and artificial food involved in the different food organisms of the fish will be learnt by the student. ¬ organism for the identification of fishery resources will be learnt by the student.

COURSE OUTCOMES OF DATA SCIENCE	
SEM-1	**MATHS FOR DATA SCIENCE**
CO-1	Fundamental properties of matrices, their norms, and their applications.
CO-2	Differentiating/Integrating multiple variable functions and the role of the gradient and the hessian matrix.
CO-3	Basic properties of optimization problems involving matrices and functions of multiple variables.
SEM-2	**INTRODUCTION TO DATA SCIENCE WITH R**
CO-1	Recognize various disciplines that contribute to a successful data science effort.
CO-2	Understand the processes of data science - identifying the problem to be solved, data collection, preparation, modeling, evaluation and visualization.
CO-3	Be aware of the challenges that arise in data sciences.
CO-4	Develop and appreciate various techniques for data modeling and mining.
CO-5	Be cognizant of ethical issues in many data science tasks.
CO-6	Be comfortable using commercial and open source tools such as the R language and its associated libraries for data analytics and visualization.
CO-7	Learn skills to analyze real time problems using R
CO-8	Able to use basic R data structures in loading, cleaning the data and preprocessing the
CO-9	Able to do the exploratory data analysis on real time datasets
CO-10	Able to understand and implement Linear Regression
CO-11	Able to understand and use - lists, vectors, matrices, dataframes, etc.
SEM-3	**DATA MINING AND DATA ANALYSIS**
CO-1	To understand and demonstrate data mining
CO-2	Compare various conceptions of data mining as evidenced in both research and application.
CO-3	Characterize various kinds of patterns that can be discovered by association rule mining.
CO-4	Evaluate mathematical methods underlying the effective application of data mining.
CO-5	To Analyze the data using statistical methods
CO-6	Gain hands-on skills and experience on data mining tools.
SEM-4 PAPER-4	**BIG DATA TECHNOLOGY**
CO-1	Learn tips and tricks for Big Data use cases and solutions.
CO-2	Acquire knowledge of HDFS components , Namenode, Datanode, etc.
CO-3	Acquire knowledge of storing and maintaining data in cluster, reading data from and writing data to Hadoop cluster.
CO-4	Able to maintain files in HDFS
CO-5	Able to write MapReduce applications to access data present on HDFS
CO-6	Able to read different formats of files into map-reduce application.
CO-7	Able to develop MapReduce applications to analyze Big Data related to the real world use cases.

CO-8	Able to write MapReduce applications that can take data from multiple datasets and join them
CO-9	Able to optimize the performance of Map-Reduce application
SEM-4 PAPER-5	**BIG DATA ACQUISITION AND ANALYSIS**
CO-1	Identify the various sources of Big Data
CO-2	Able to collect and store Big Data from various sources
CO-3	Able to write Pig Scripts- Extract, Transform and Load the data on HDFS
CO-4	Able to write Hive Scripts- Extract, Transform, Load and Analyse the data present in HDFS
CO-5	Able to write scripts to extract data from structured and un-structured data for analytics
CO-6	Able to extract and process semi and un-structured data using HBase
SEM-5 PAPER-6A	**SOFT COMPUTING**
CO-1	Understand the fundamental theory and concepts of neural networks .
CO-2	Illustrate the soft computing techniques like neural network and fuzzy logic and their roles in building intelligent systems
CO-3	Illustrate and implement the various learning rules
CO-4	Comprehend the fuzzy logic and the concept of fuzziness involved in various systems and fuzzy set theory.
CO-5	Understand the concepts of fuzzy sets, knowledge representation using fuzzy rules, approximate reasoning, fuzzy inference systems, and fuzzy logic
CO-6	Design and implement real life examples using fuzzy logic and genetic algorithms
SEM-5 PAPER-7A	**AI CONCEPTS AND TECHNIQUES**
CO-1	List the objectives and functions of modern Artificial Intelligence.
CO-2	Categorize an AI problem based on its characteristics and its constraints.
CO-3	Understand and implement search algorithms.
CO-4	Learn how to analyze the complexity of a given problem and come with suitable optimizations.
CO-5	Demonstrate practical experience by implementing and experimenting with the learnt algorithms
SEM-5 PAPER-6B	**SUPERVISED MACHINE LEARNING**
CO-1	Able to understand introduction to machine learning concepts.
CO-2	Able to Loading datasets, build models and model persistence.
CO-3	Understand Feature extraction from data sets.
CO-4	Able to do Regression & Classification. Able to compare SVM with other classifiers.

SEM-5 PAPER-7B	**UNSUPERVISED MACHINE LEARNING**
CO-1	Able to do Clustering, feature extraction and optimization.
CO-2	Students will be able to understand and implement in Python algorithms of Unsupervised Machine Learning and apply them to real-world datasets
SEM-5 PAPER-6C	**ARTIFICIAL NEURAL NETWORK**
CO-1	Create different neural networks of various architectures both feed forward and feed backward.
CO-2	Perform the training of neural networks using various learning rules.
CO-3	Perform the testing of neural networks and do the perform analysis of these networks for various pattern recognition applications.
SEM-5 PAPER-7C	**DEEP LEARNING**
CO-1	Solve problems in linear algebra, probability, optimization, and machine learning.
CO-2	The advantages and disadvantages of deep learning neural network architectures and other approaches.
CO-3	Implement deep learning models in Python using the PyTorch library and train them with real-world datasets.
CO-4	Design convolution networks for handwriting and object classification from images or video.
CO-5	Design recurrent neural networks with attention mechanisms for natural language classification, generation, and translation.

SEMESTER – I :: MICROECONOMIC ANALYSIS	**LEARNING OUTCOMES FOR THE COURSE** At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills. 1. Remembers and states in a systematic way (Knowledge) a. the differences between microeconomic analysis and macroeconomic analysis b .various laws and principles of microeconomic theory under consumption, 2. Explains (understanding) a. various terms and concepts relating to microeconomic analysis with the help of examples of real life b. consumer's equilibrium and consumer's surplus using indifference curve analysis. c. various laws and principles of consumption, production, and income distribution d. determination of price and output discriminating different market conditions in short term and long term 3. Critically examines using data and figures (analysis and evaluation) a. various laws and principles of microeconomic analysis and market conditions b. application of the concept of demand elasticity and its relation with Average and Marginal Revenue c. the relationship between average and marginal cost/revenue both in long term and 4. Draws critical diagrams and graphs to explain and examine the application of various laws and principles of microeconomic analysis
SEMESTER – 2:: MACROECONOMIC ANALYSIS	**LEARNING OUTCOMES FOR THE COURSE** At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills. 1. Remembers and states in a systematic way (knowledge) Various concepts, definitions,laws and principles of macroeconomic theory with referenceto income, employment, money, banking and finance 2. Explains (understanding) a.the difference between various concepts and components of national income with illustrationsand methods of measuring national income b. various terms, concepts, laws and principles, theories relating to income,

	employment, consumption, investment, money, price-level and phases of trade cycles d. functions of commercial banks and central bank, creation and control of credit 3. Critically examines using data and figures (analysis and evaluation) a. in order to understand the interrelationship between various components of national income b. the theories of macroeconomics with reference to their assumptions, implications and applicability c. Empirical evidences of Consumption and Investment Functions and factors influencing them 4. Draws critical formulae, diagrams and graphs. a. consumption and investment functions; concepts of multiplier and accelerator b. price indices, inflation and trade cycles
SEMESTER – 3:: COURSE – 3 DEVELOPMENT ECONOMICS	LEARNING OUTCOMES FOR THE COURSE At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills. 1. Remembers and states in a systematic way (Knowledge) Various concepts and definitions and indicators relating to economic growth and Development including recent developments 2. Explains (understanding) a. Distinction between growth and development with examples c. Characteristics of developing and developing economies and distinction between the two d. factors contributing to development, Choice of Techniques and a few important models and strategies of growth 3. Critically examines using data and figures (analysis and evaluation) a. the theoretical aspects of a few models and strategies of economic growth b. role and importance of various financial and other institutions in the context of India's economic development 4. Draws critical diagrams and graphs. a. to explain the models and strategies b. to highlight empirical evidences to support the stra
SEMESTER – 4 :: ECONOMIC DEVELOPMENT-INDIA AND ANDHRA PRADESH	LEARNING OUTCOMES FOR THE COURSE At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills. 1. Remembers and states in a systematic way (Knowledge) a. leading issues of Indian economic development with reference to

	potential for growth, obstacles and policy responses b. Objectives, outlays and achievements of economic plans and growth strategies 2. Explains (understanding) a. Available Resources, demographic issues, general problems of poverty and unemployment and relevant policies b.Sector specific problems, remedial policies and their effectiveness relating to Agriculture and Industrial Sectors of Indian and AP economy and infrastructure issues of AP economy c. Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds d. Major issues of economic development of Andhra Pradesh after bifurcation and Central assistance 3. Critically examines using data and figures (analysis and evaluation) a. Leading issues of current importance relating to India and AP economy, major policies and programmes b. Covid– 19 and its impact on Indian economy 4. Uses official statistical data and reports including tables and graphs a. To explain the achievements of Indian economy with reference to the objectives of planning and policy and make critica
(Semester - IV) STATISTICAL METHODSFOR ECONOMICS	LEARNING OUTCOMES FOR THE COURSE At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills. 1. Remembers and states in a systematic way (Knowledge) a. the definitions, terms and their meaning relating to statistical methods b. various formulae used to measure central tendency, correlation regression and Indices 2. Explains (understanding) a. Importance of statistics and its applications b. The method of classification of primary data c. Uses of Correlation and Regression analysis, time series and index numbers in economic analysis 3. Analyses and solves usinggiven data and information (analysis and evaluation) a. different kinds of statistical problems using various principles and formulae relating to central tendency, correlation, regression, time series and indices b. to interpret data and suggest solutions to economic problems 4. Draws critical diagrams and graphs. a. Histogram, Frequency Polygon and Frequency Curve b. More than cumulative and less than cumulative frequency curves (Ogive) c. Different types of Bar diagrams d. Pie Diagram and its
Course 6A: Rural Entrepreneurship (Skill Enhancement Course (Elective)	. **Learning Outcomes: Students** at the successful completion of the course shall be able to: 1. Explain the basic theories and essentials of entrepreneurship; 2. Identify and analyze the entrepreneurship opportunities available in local rural area;

	3. Apply the theories of entrepreneurship to the conditions of local rural area and formulate appropriate business ideas; 4. Demonstrate practical skills that will enable them to start rural entrepreneurship
Course 6B: Urban Entrepreneurship and MSMEs (Skill Enhancement Course (Elective),	. **Learning Outcomes:** Students at the successful completion of the course shall be able to: 1. Explain the basic theories and essentials of entrepreneurship 2. Identify and analyze the entrepreneurship opportunities available in local urban area . 3. Apply the theories of entrepreneurship to the conditions of local urban area and formulate appropriate business ideas . 4. Demonstrate practical skills that will enable them to start urban entrepren
Course 6C: Insurance Services (Skill Enhancement Course (Elective), 4 Credits)	I. **Learning Outcomes:** Students at the successful completion of the course shall be able to 1. Explain the concept and principles of insurance service and functioning of insurance service agencies; 2. Identify and analyse the opportunities related insurance services in local rural area; 3. Apply the concepts and principles of insurance to build a career in Insurance services; 4. Demonstrate practical skills to enable them to start insurance service agency or earn wage employment in it
Course 6D: Inferential Statistics and Software Packages (Skill Enhancement Course (Elective), 4 Credits)	**1. Learning Outcomes**: Students at the successful completion of the course shall be able to: 1. Demonstrate the knowledge related to the important concepts and techniques of inferential statistics 2. Calculate correlation, regression coefficients and interpret the results. 3. Use Excel sheets and SPSS package to analyse the data and
Course 7A: Farmer Producer Organizations (FPOs) (Skill Enhancement Course (Elective), 4 Credits)	I. **Learning Outcomes:** Students at the successful completion of the course shall be able to: 1. Explain the concept and organization of FPO and its economic activities. 2. Identify and analyse the opportunities related to FPO in local rural area. 3. Apply the concepts to the identified FPO related opportunities available in the local area and formulate business ideas. 4. Demonstrate practical skills that will enable them to start a FPO or earn wage employ

Course 7B: Retail and Digital Marketing (Skill Enhancement Course (Elective), 4 Credits	**Learning Outcomes**: Students at the successful completion of the course shall be able to: 1. Explain the concepts and principles about the retail and digital marketing; 2. Identify and analyse the opportunities related to retail and digital marketing available in the local area; 3. Apply the concept to formulate the new strategies related to retail and digital marketing; 4. Demonstrate the practical skills required to get employment in retail and digital marketing or to start own digital marketing
Course 7C: **Banking and Financial Services** (Skill Enhancement Course (Elective), 4 Credits)	**I. Learning Outcomes:** Students at the successful completion of the course shall be able to: 1. Explain the concept and essentials banking and financial services. 2. Identify and analyse the employment opportunities related to banks and other financial institutions. 3. Apply the concepts to banking and financial opportunities and formulate ideas related to them. 4. Demonstrate practical skills to enable them to get employment in Banks and other financial institutions as business correspondents or Common Service Centers or marketing agents.
Course 7D: **Project Designing and Report Writing** (Skill Enhancement Course (Elective), 4 Credits)	**Learning Outcomes:** The Student at the successful completion of the course shall be able to: 1. Demonstrate the knowledge relating to research, its role in enhancement of knowledge in social sciences in general and economics in particular; 2. Formulate a good research design to undertake mini research projects with a view to studying the socio-economic problems of the society; 3. Undertake a field survey by himself/herself to collect relevant data and information relating to his/her project work; 4. Develop capacity to write a simple project report with all relevant components on the research project undertaken by him/her.

Program Outcomes

B.Com (General)

After completing the B.Com (General) programme, the students are able to:

PO 1: Develop the skills and techniques of Communication and Decision Making to be successful in business and personal life.

PO 2: Improve competencies to make eligible and employable in the job market.

PO 3: Recognize different value systems and ethics, understand the moral dimensions and accept responsibility.

PO 4: Attain thorough knowledge of different specializations in Accounting, Costing, Taxation, Banking and Auditing.

PO 5: Join in different professional exams like C.A , CMA and C.S.

PO 6: Gain knowledge to start their own Business independently.

B.Com (Computer Applications)

After completing the B.Com (Computer Applications) programme, the students are able to:

PO 1: Develop the skills and techniques of Communication and Decision Making to be successful in business and personal life.

PO 2: Improve competencies to make eligible and employable in the job market.

PO 3: Recognize different value systems and ethics, understand the moral dimensions and accept responsibility.

PO 4: Attain thorough knowledge of different specializations in Accounting, Costing, Taxation, Banking and Auditing.

PO 5: Join in different professional exams like C.A , CMA and C.S.

PO 6: Gain knowledge to start their own Business independently.

PO7: Communicate effectively and present technical information in oral and written reports.

PO8: Utilize the computing knowledge efficiently in projects with concern for societal, environmental, and cultural aspects.

B.Sc MPC

PO 1: This course forms the basis of science for coherent understanding of the academic field to pursue multi and inter-disciplinary science careers in future. (MPC)

PO 2: Able to plan and execute experiments or investigations, analyse and interpret data information collected using appropriate methods (Practical Paper)

PO 3: It helps to develop scientific temper and thus can prove to be more beneficial for the society as the scientific developments can make a nation or society to grow at a rapid pace through research. (Renewable Energy Project)

PO 4: Students can Apply discrete probability distributions. (Survey)

PO 5: Discuss debate and communicate in a clear and logical way, with graduates other fields. (Seminar)

PO 6: Demonstrate skills and competencies to conduct scientific experiments & data analysis.

PO 7: Bachelor of Science offers theoretical as well as practical knowledge about different subject areas.

PO 8: Knowledge acquired through field trips/industrial tours is useful for their job work.

B.Sc MPCS

PO 1: Bachelor of Science offers theoretical as well as practical knowledge about different subject areas.

PO 2: This course forms the basis of science for coherent understanding of the academic field to pursue multi and inter-disciplinary science careers in future. These subject areas include Physics, Chemistry, Mathematics, Computer Science, Acqua culture and Zoology.

PO 3: Able to plan and execute experiments or investigations, analyze and interpret data information collected using appropriate methods.
PO 4: It helps to develop scientific temper and thus can prove to be more beneficial for the society as the scientific developments can make a nation or society to grow at a rapid pace through research.
PO 5: Be able to program fluently in one or two programming languages.
PO 6: Understand the major programming paradigms and be able to learn a new programming language in a fairly short time and understand standard techniques for solving a problem on a computer, including programming techniques and techniques for the representation of information.
PO 7: Understand the basic theory of computer architectures, the nature of operating systems and compilers, software development process, and how information technology affects society, business and the individual.
PO 8: Be able to effectively communicate with persons who are not technically versed in the subject.

B.A

Upon completion of BA Degree Programme with History combination the graduates will be able to:
PO-1 Student will be able to acquire historical knowledge, depth in terms of content and chronology of contents.
PO-2 Student will be able to distinguish between Primary and Secondary Sources to study of history and understand how to make use of them.
PO-3 Develop respect for our Heritage and culture and understand the strength of diversity of our country.
PO-4 To understand & evaluate different historical ideas, various arguments and point of view.
PO-5 The ability to use bibliographical tools for the advanced study of history in to their analysis of social, political, religious, cultural, economic issues.

PO-6 The student may acquire a knowledge of the changing nature of politics or kingdoms of the changing times.

B.VOC:AQUACULTURE

“The domain subject “AQUACULTURE ”, embracing the fields of biology of commercial aquatic organisms like fish. Prawn, seaweed, pearl oysters, hatchery technology, culture practices, disease management, food and feeding habits, feed manufacturing, marketing, economics etc, is very much market oriented course as the state of Andhra Pradesh is having longest coastal belt providing greater employment opportunities to the community. PO 1: This course forms the basis of science for coherent understanding of the academic field to pursue multi and inter-disciplinary science careers in future.

PO 2: Able to plan and execute experiments or investigations, analyse and interpret data information collected using appropriate methods (Practical Paper)

PO 3: It helps to develop scientific temper and thus can prove to be more beneficial for the society as the scientific developments can make a nation or society to grow at a rapid pace through research. (Renewable Energy Project)

PO 4: Students can Apply discrete probability distributions. (Survey)

PO 5: Discuss debate and communicate in a clear and logical way, with graduates other fields. (Seminar)

PO 6: Demonstrate skills and competencies to conduct scientific experiments & data analysis.

PO 7: Bachelor of Science offers theoretical as well as practical knowledge about different subject areas.

PO 8: Knowledge acquired through field trips/industrial tours is useful for their job work.

GOVT. DEGREE COLLEGE

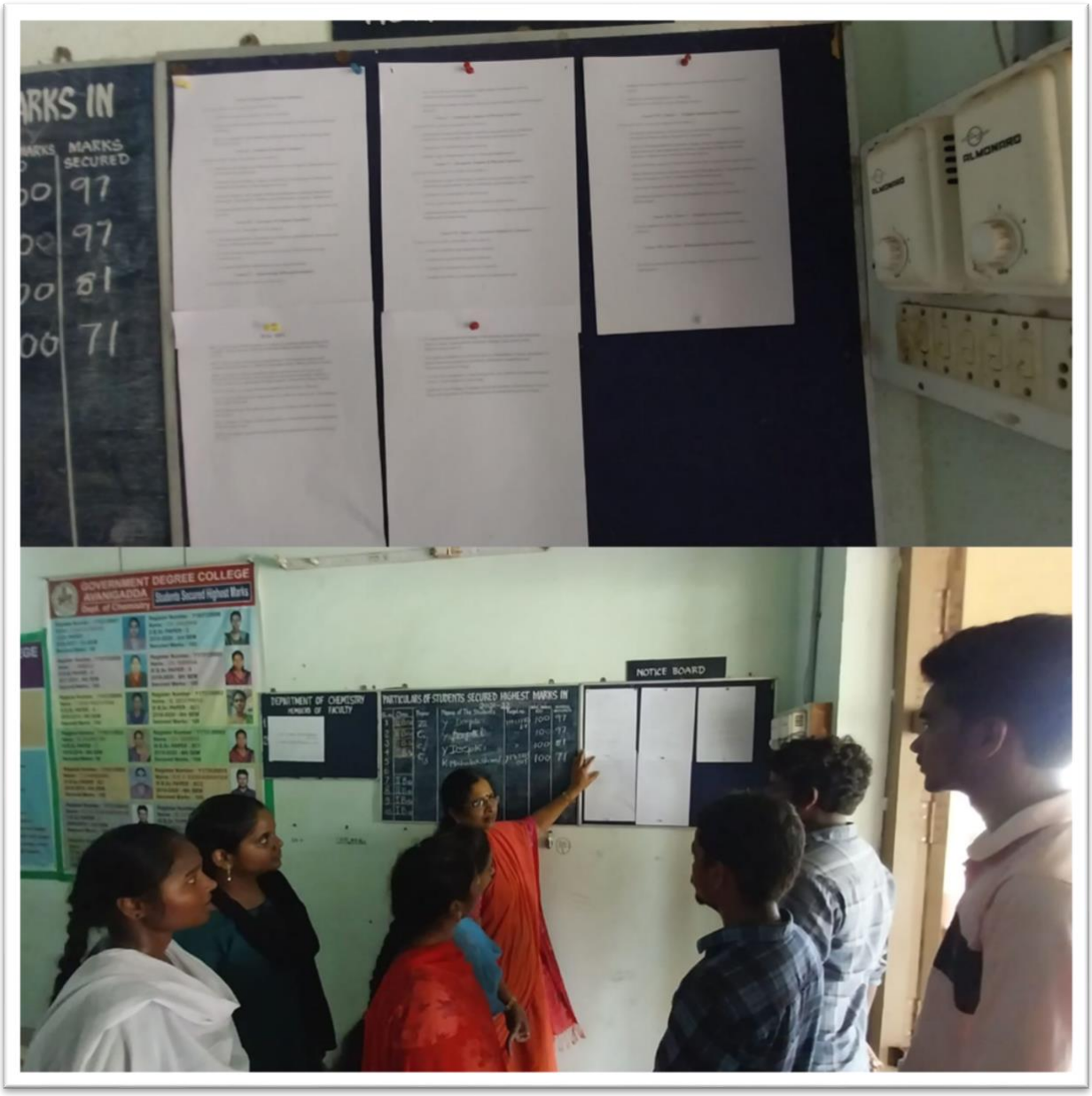
(AFFILIATED TO KRISHNA UNIVERSITY)

AVANIGADDA, NAAC-B

ISO 50001: 2011, ISO 14001:2015, ISO 9001:2015

Display of Course Outcomes and Program Outcomes in the Departments

Department of Chemistry

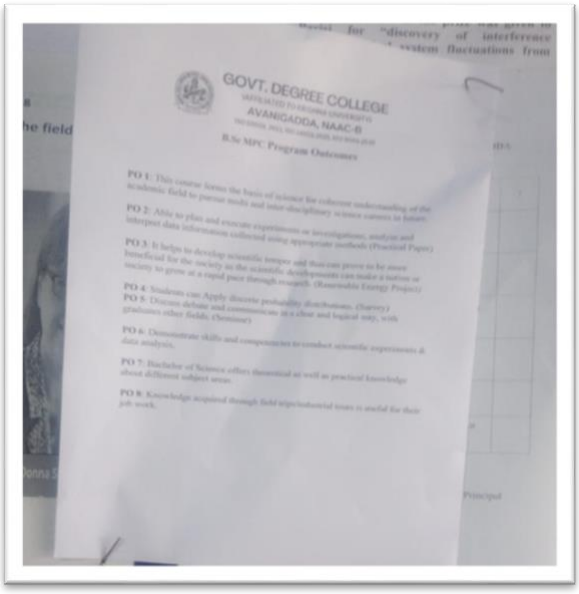


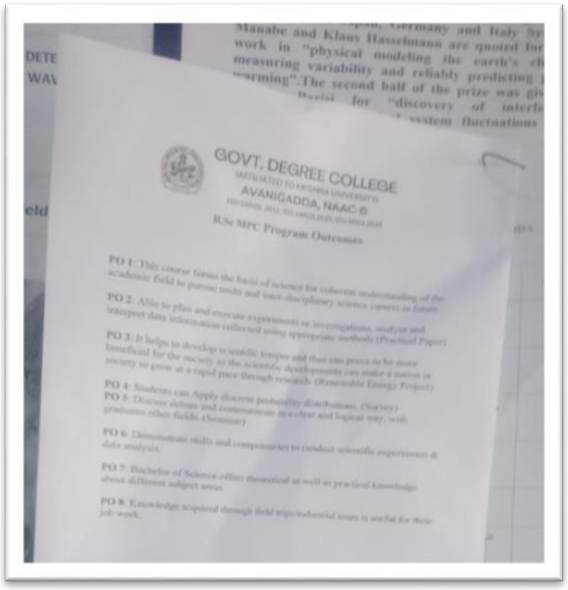
Department of Telugu

Department of Mathematics

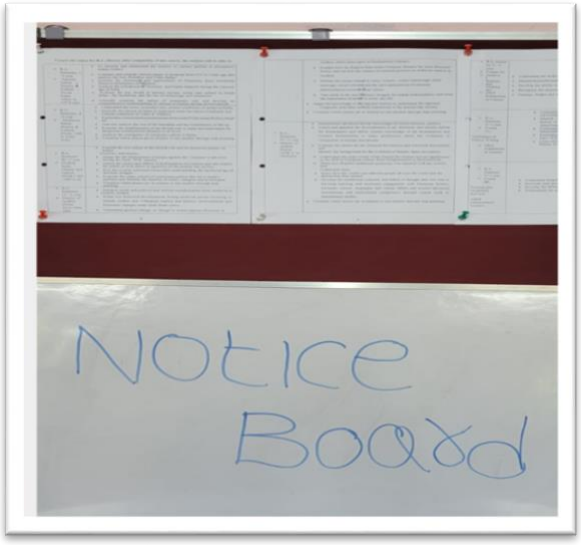
Department of English

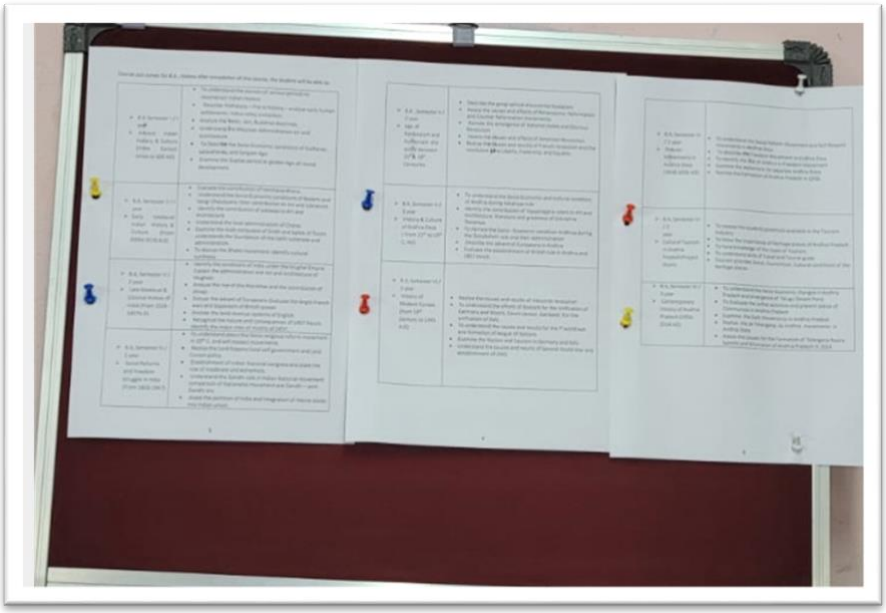
Department of Physics



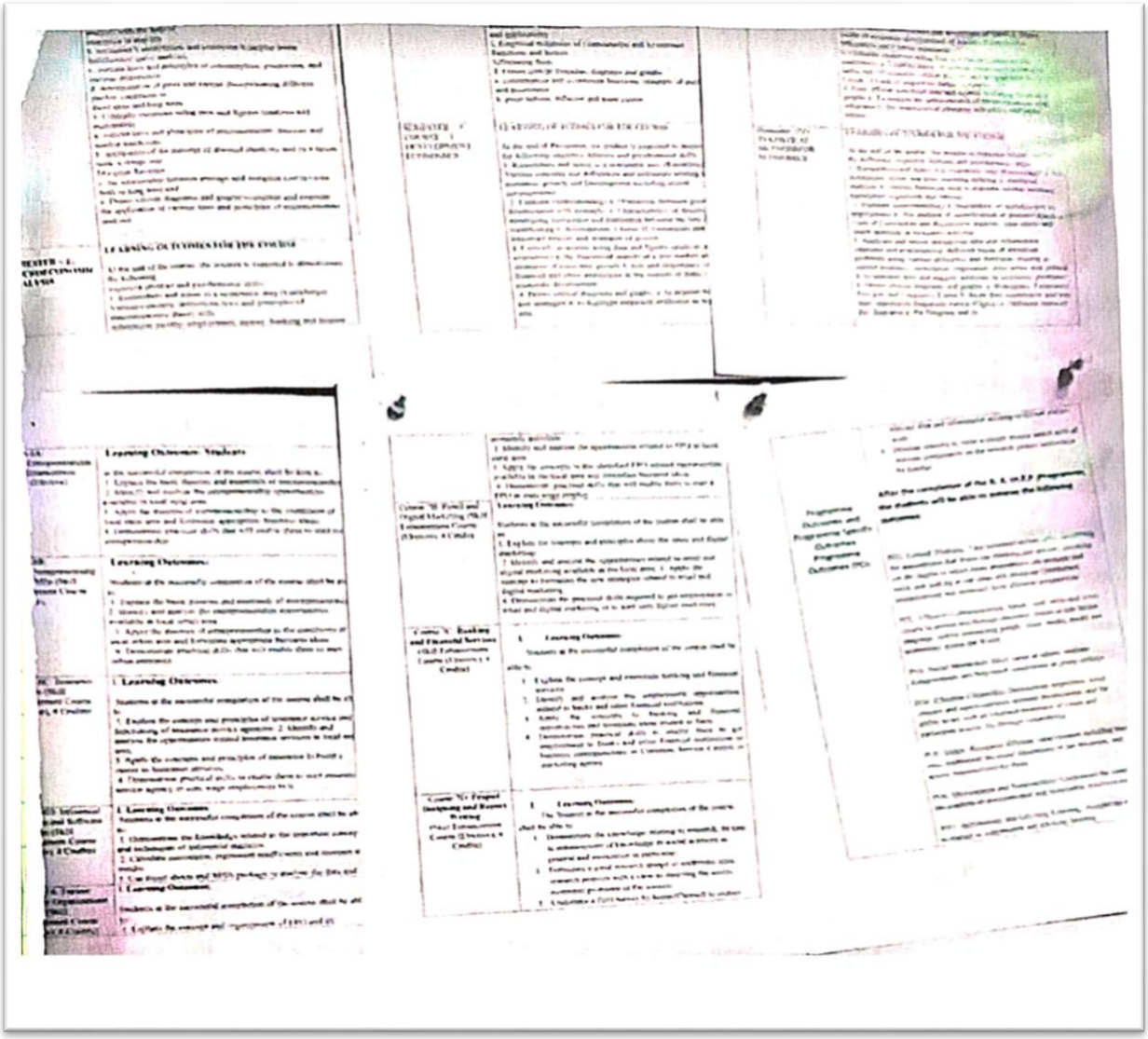


Department of History

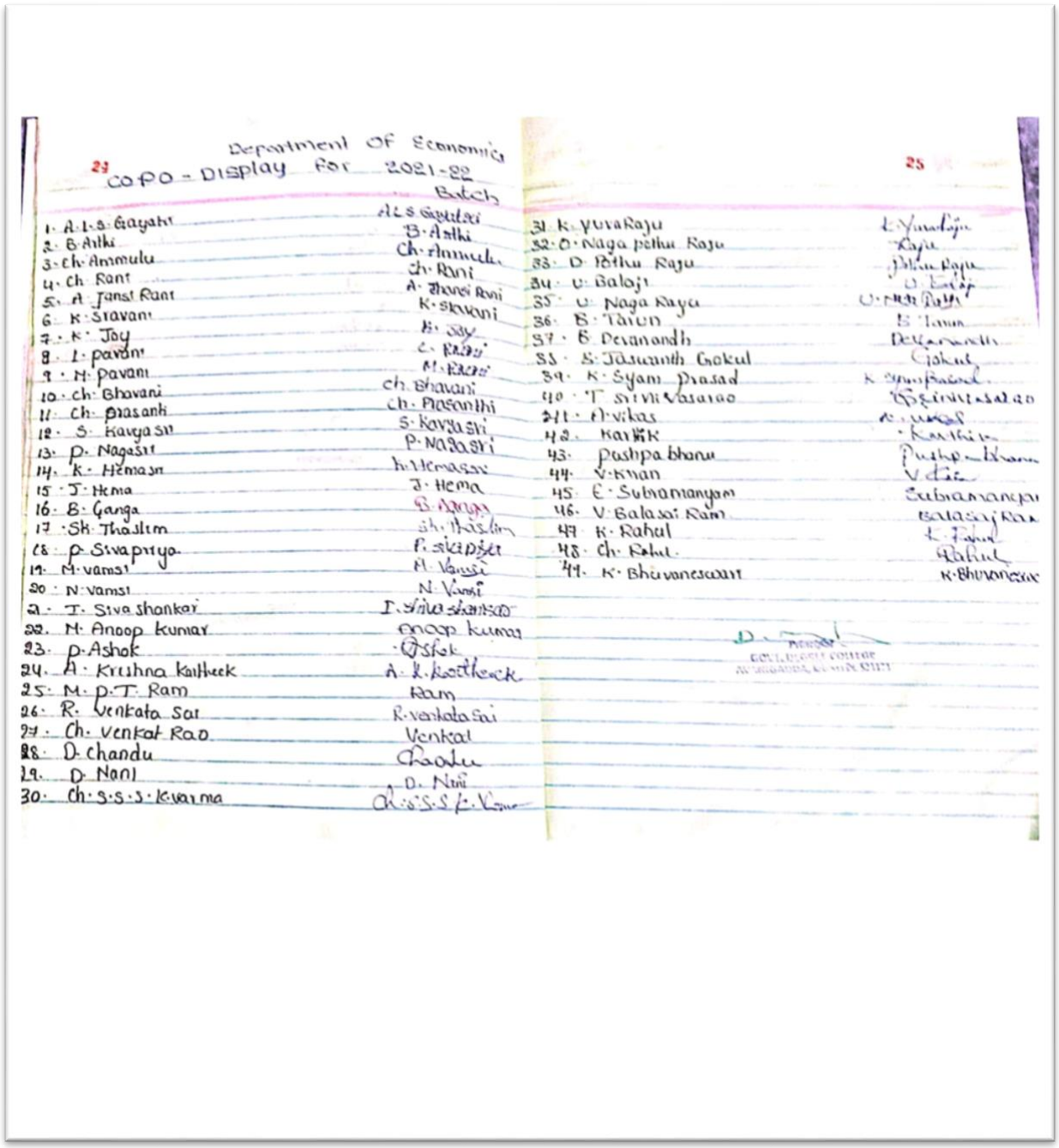




Department of Economics



Courser outcomes and Program outcomes communicated to students in the class room and their signatures register



Department Of Economics

23 COPO - Display for 2021-22 Batch

1.	A.L.S Gayatri	A.L.S Gayatri
2.	B Arthi	B. Arthi
3.	Ch. Ammulu	Ch. Ammulu
4.	Ch. Rani	Ch. Rani
5.	A. Jansi Rani	A. Jansi Rani
6.	K. Sravani	K. Sravani
7.	K. Joy	K. Joy
8.	L. pavani	L. Pavani
9.	M. pavani	M. Pavani
10.	Ch. Bhavani	ch. Bhavani
11.	Ch. prasanthi	Ch. Prasanthi
12.	S. Kavya sri	S. Kavya Sri
13.	P. Nagasri	P. Nagasri
14.	K. Hemasri	K. Hemasri
15.	J. Hema	J. Hema
16.	B. Ganga	B. Ganga
17.	Sk. Thaslim	Sk. Thaslim
18.	P. Sivapriya	P. Sivapriya
19.	M. vamsi	M. Vamsi
20.	N. vamsi	N. Vamsi
21.	I. Siva shankar	I. Siva shankar
22.	M. Anoop kumar	Anoop kumar
23.	P. Ashok	P. Ashok
24.	A. Krishna kaitheek	A. K. kaitheek
25.	M. P. T. Ram	Ram
26.	R. Venkata Sai	R. venkata Sai
27.	Ch. Venkat Rao	Venkat
28.	D. Chandu	Chandu
29.	D. Nani	D. Nani
30.	Ch. S.S.S. Kvarma	Ch. S.S.S. Varma

25

31.	K. YuvaRaju	K. Yuvaraju
32.	O. Naga pathu Raju	Raju
33.	D. Pathu Raju	Pathu Raju
34.	U. Baloji	U. Baloji
35.	U. Naga Raju	U. Naga Raju
36.	B. Tarun	B. Tarun
37.	B. Devanandh	Devanandh
38.	S. Jasvanth Gokul	Gokul
39.	K. Syam Prasad	K. Syam Prasad
40.	T. Srinivasarao	T. Srinivasarao
41.	A. vikas	A. vikas
42.	Karthik	Karthik
43.	Pushpa bhanu	Pushpa bhanu
44.	V. Kiran	V. Kiran
45.	E. Subramanyam	Subramanyam
46.	V. Balasai Ram	Balasai Ram
47.	K. Rahul	K. Rahul
48.	Ch. Rahul	Rahul
49.	K. Bhuvaneswari	K. Bhuvaneswari

GOVT. DEGREE COLLEGE

1. A. Siva Naga Ram
2. A. Kiran
3. Ch. Santhi
4. ch. Honeysha
5. D. Nihar Sai
6. G. Sai Tejaswi
7. G. Iswarya
8. G. Akhil
9. G. Tulasi
10. K. N. S. mani Kanta
11. K. Lakshmi Kaveri
12. K. Karuna
13. K. Indu Sreeja
14. K. Latha
15. L. Bhargav Kumar
16. M. S. P. Bharani
17. M. Naga babu
18. N. Rohita
19. S. Jagan Kumar
20. S. Jageswara Rao
21. SK. Kabeera
22. Sk. Nageena.
23. S. Jyothi
24. T. Vasa Lakshmi
25. T. Deepika
26. U. Chandini
27. U. Mahesh Vishnu.
28. Y. Bhanu prasad.
29. Y. N. Sonia

S.NO.

1. B. V. P. Umabala.
2. Ch. Lakshmi Prasanna
3. Ch. Sriharitha
4. K. Maha lakshmi
5. K. Venkateswarao
6. U. Urmila
7. P. Naveen Kum.
8. R. Naga prasad
9. T. Vamsi
10. U. Prasanna Kumari
11. V. Vani
12. V. Vijaya Lakshmi
13. V. mounika
14. Y. Deepthi