S P W DEGREE& PG COLLEGE – TIRUPATI
DEPARTMENT OF COMERCE
Academic year – 2022-23
BCOM COMPUTER APPLICATIONS

PROGRAMME OUTCOMES

PO1 - Enables learners to get theoretical and practical exposure in the commerce sector which includes Accounts, Commerce, Management, Environment etc.

PO2 - Develops communication skills and build confidence to face the challenges of the corporate world.

PO3 - Enhances the capability of decision making at personal and professional levels.

PO4 – Makes students industry ready and develop various managerial and accounting skills for better professional opportunities.

PO5 - Develops entrepreneurial skills amongst learners.

PO6 - Strengthens their capacities in varied areas of commerce and industry aiming towards holistic development of learners.

PO7 - Thus, after completing their graduation learners develop a thorough understanding of the fundamentals in Commerce and Finance.

PROGRAMME SPECIFIC OUTCOMES

PSO1 - Learners venture into Managerial positions, Accounting areas, Banking Sectors, Auditing, Company Secretaryship, Teaching, Professor, Stock Agents, Government Employment etc.

PSO2 - Enables learners to prove themselves in different Professional examinations like CA,CS, CMA, etc.

PSO3 -Learners further move towards research in the field of Commerce.

PSO4- Enables students to demonstrate Progressive learning of various tax issues and tax forms related to individuals and businessmen and setting up their own business start up.

PSO5 – The vast syllabi covers various fields of commerce and accountancy which helps students grasp practical and theoretical knowledge.

COURSE OUTCOMES

Semester – I

Sl.No	Course	Name of the Subject
01	1A	Fundamentals of Accounting
02	1B	Business Organization & Management
03	1C	Information Technology
		Practicals

1A: Fundamentals of Accounting

1. Identify transactions and events that need to be recorded in the books of Accounts.
2. Equip with the knowledge of Accounting process and preparation of final Accounts of Sole Trader.
3. Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
4. Analyze the difference between Cash Book and Pass Book in terms of balance and make reconciliation.
5. Critically examine the Balance Sheets of a Sole Trader for different Accounting Periods.
6. Design new Accounting formulas and principles for Business Organizations.

1B: Business Organization & Management

1. Understand different forms of Business Organizations.
2. Comprehend the nature of Joint Stock Company and formalities to promote a Company.
3. Describe the Social Responsibility of Business towards the society.
4. Critically examine the various Organizations of the Business Firms and judge the best among them.
5. Design and plan to register a Business Firm. Prepare different documents to register a Company at his/ her own.
6. Articulate new models of Business Organizations.

1C – Information Technology

1. Describe the fundamental Hardware Components that make up a Computer's hardware and the role of each of these Components.

2. Use System development, Word – Processing, Spread Sheet and presentation software to solve basic Information systems problems.

3. Retrieve Information and create Reports from Databases.

4. Interpret, produce and present work –related documents and Information effectively and accurately.

5. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

6. Identify and analyze Computer Hardware, Software.

Semester - II

Sl.No	Course	Name of the Subject
1	2A	Financial Accounting
2	2B	Business Economics
3	2C	E-Commerce & Web Designing
		Practicals

2A - Financial Accounting

1. Understand the concept of Consignment and learn the Accounting treatment of the various aspects of Consignment..
2. Analyze the Accounting process and preparation of Accounts in Consignment and Joint Venture.
3. Distinguish Joint Venture and Partnership and to learn the methods of maintaining records under Joint Venture.
4. Determine the useful life and value of the depreciable assets and maintenance of Reserves in Business Entities.
5. Design an Accounting system for different models of Businesses at his/her own using the principles of existing Accounting system.
6. Learn the Procedure of maintaining varipus Ledger Accounts for Depreciable Assets.

2B-Business Economics

1. Describe the Nature of Economics in dealing with the issues of scarcity of resources.
2. Analyze supply and demand analysis and its impact on Consumer Behaviour.
3. Evaluate the factors such as Production and Costs affecting firm's behaviour .
4. Recognize market failure and the role of Government in dealing with those failures.
5. Use Economic Analysis to evaluate controversial issues and polices.
6. Apply Economic models for managerial problems, identify their relationships and formulate the decision making tools to be applied for Business.

2C- E-Commerce & Web Designing

1. Understand the foundations and importance of E-Commerce
2. Define Internet Trading Relationships including Business to consumer, Business to Business, Intra-Organizational.
3. Understand the principles of creating an effective webpage, including an in-depth consideration of Information Architecture.
4. Learn the language of web: HTML & CSS
5. Exploring a Web Development framework as an implementation example and create dynamically generated website complete with user accounts, page level security, modular design using CSS.
6. Design and develop webpages including: CSS Style Rules, Typography, Hyperlinks, Lists , Tables, Frames, Forms, Images, Behaviours, CSS Layouts.

Semester - III

S. No.	Course	Name of the Subject
01	3A	Advanced Accounting
02	3B	Business Statistics
03	3C	Programming in C & C++
		Practicals

3A – Advanced Accounting

1. Able to prepare Debtors Ledger, Creditors Ledger Adjustment Accounts.
2. Understand the Concept of Non-Profit Organizations and its Accounting Process.
3. Comprehend the Concept of Single Entry System and Preparation of Statement of Affairs.
4. Familiarize with the Legal Formalities at the time of Dissolution of the Firm.
5. Prepare Financial Statements for Partnership Firm on Dissolution of the Firm.
6. Employ Critical Thinking Skills to understand the Difference between the Dissolution of the Firm and Dissolution of Partnership.

3 B – Business Statistics

1. Statistics can help in providing a better understanding and exact description of a phenomenon of market nature.
2. In statistics the three most common measures of central tendency are the mean, median and mode. After studying these three measure the students can able to understand the average of variables.
3. Formulate Complete, Concise and Correct Mathematical Proofs.
4. The action or process of distribution they are discussed in variance of dispersion. It can useful to the student to find the average distance of the item from an average and it is also useful to understand range of variable, quartile deviation and standard deviation etc.,
5. A correction coefficient is a numerical measure of some type of correction. It can help the student to measure of the strength of linear relationship between two or more variables and to know now strongly two variables are related and one believes that the relationship.
6. Finally the purpose of to study the index numbers is to know the time to time changes in money value, market, prices, quantity etc., through this chapter students can able to identify the changes of money value and it is also useful to the student in their real life.

3 C – Programming in C & C++

1. Develop Programming Skills, learn the Syntax and Semantics of Programming Language.
2. Be familiar with Programming Environment of C and C++.
3. Ability to work with Textual Information (Characters and Strings) and Arrays.
4. Understanding the Concept of Object Thinking within the framework of Functional Model.
5. Write a Programme on a Computer, Edit, Compile, Debug, Correct, Recompile and Run it.
6. Analyze and Evaluate how C++ improves C with Object Oriented Features.

SEMESTER – IV

1	4A	Corporate Accounting
2	4B	Cost and Management Accounting
3	4C	Income Tax
4	4D	Business Laws
5	4E	Object Oriented Programming with JAVA
		Practicals
6	4F	Data Base Management System
		Practicals

4A – Corporate Accounting

1. **Understand the Accounting Treatment of Share Capital and Aware of Process of Book Building.**
2. **Demonstrate the Procedure for Issue of Bonus Shares and Buy-Back of Shares.**
3. Comprehend the Important Provisions of Companies Act 2013, and prepare Final Accounts of a Company with Adjustments.
4. **Participate in the Preparation of Consolidated Accounts for a Corporate Group.**
5. **Understand Analysis of Complex Issues, Formulation of Well-reasoned arguments and reaching better conclusions.**
6. **Communicate Accounting Policy Choices with reference to relevant Laws and Accounting Standards.**

4B – Cost and Management Accounting

1. **Understand various Costing Methods and Management Techniques.**
2. **Apply Cost and Management Accounting Methods for both Manufacturing and Service Industry.**
3. **Prepare Cost Sheet, Quotations and Tenders to Organizations for different works.**
4. **Analyze Cost – Volume – Profit Techniques to determine Optimum Managerial Decisions.**
5. **Compare and Contrast the Financial Statements of Firms and interpret the results.**
6. **Prepare Analysis of various decisions, using relevant Management Techniques.**

4C – Income Tax

1. Acquire the Complete Knowledge of the Tax Evasion, Tax Avoidance and Tax Planning.

2. Understand the Provisions and Compute Income Tax for various Sources.
3. Grasp Amendments made from Time-to-Time in Finance Act.
4. Compute Total Income and Define Tax Complicacies and Structure.
5. Prepare and File IT Returns of Individual at his own.
6. Compute Total Income and Taxable Income under various Heads of Income.

4D – Business Laws

1. Understand the Legal Environment of Business and Laws of Business.
2. Highlight the security aspects in the present Cyber-Crime Scenario.
3. Apply Basic Legal knowledge to Business Transactions.
4. Understand the various provisions of Company Law.
5. Engage Critical Thinking to predict Outcomes and recommend appropriate action on issues relating to Business Associations and Legal Issues.
6. Integrate Concept of Business Law with Foreign Trade.

4E – Object Oriented Programming with JAVA

1. Understand the Meaning and Basic Terminology used in JAVA.
2. Learn to implement Basic JAVA Programmes.
3. Demonstrate as how to use Control Structures in JAVA Programmes.
4. Application of Arrays and Strings in JAVA Programming.
5. Application of different types of Packages in JAVA Programming.
6. Analyze and Evaluate how JAVA improves Object Oriented Features.

4F – Data Base Management System

1. Understand the Role of DBMS in an Organization.
2. Apply Logical Data-base Design Principles using ER-Diagram and Normalization.
3. Design and build simple Data-Base Systems with Fundamental Tasks involved with Modelling, Designing and implementing a DBMS.
4. Perform PL_SQL Programme using Cursors, Error-Handling, Packages.
5. Apply various Normalization Techniques.
6. Model an Applications Data requirements using Conceptual Modelling Tools like ER-Diagram and Design Data-base Schemas based on the Conceptual Model.

SEMESTER-V

Semester Internship for B.Com (Computer Applications)

SEMESTER – VI

1	2-6-101-20B-R20	Life Insurance
2	2-6-101-21B-R20	General Insurance
3	2-6-101-18A-R20	Management Accounting
4	2-6-101-19A-R20	Cost Control Techniques
5	1-6-103-6A-R20	Big Data Analytics using R
		Practicals
6	1-6-103-7A-R20	Data Science using Python
		Practicals

2-6-101-20B-R20 - Life Insurance

1. Understand the features of Life Insurance, schemes and policies and Insurance Companies in India.
2. Analyze various schemes and policies related to Life Insurance sector.
3. Choose suitable insurance policy for given situation and respective persons.
4. Acquire insurance agency skills and other administrative skills.
5. Acquire skill of settlement of chains under various circumstances.

2-6-101-21B-R20 - General Insurance

1. Understand the features of General Insurance and Insurance Companies in India.
2. Analyze various schemes and policies related to general insurance sector.
3. Choose suitable insurance policy under health, fire, motor and marine insurances.
4. Acquire general insurance agency skills and administrative skills.
5. Apply skill for settlement of claims under various circumstances.

2-6-101-18A-R20 - Management Accounting

1. Understand the nature and scope of Management Accounting and differentiate Management Accounting and financial accounting and cost accounting.
2. Compute Ratios and draw inferences.
3. Analyze the performance of the organization by preparing funds flow statement.

4. Analyze the performance of the organization by preparing cash flow statement.
5. Prepare cash budget, fixed budget and flexible budget.

2-6-101-19A-R20 - Cost Control Techniques

1. Differentiate Cost Control, Cost Reduction concepts and identify effective techniques.
2. Evaluate operating cost for transport Organizations.
3. Analyze and apply CVP analysis for profit planning, selection of product mix, sales mix, make or buy decisions.
4. Understand the concept of standard cost and analyze the variances relating to materials..
5. Preparation of process costing with normal loss, abnormal loss and abnormal gains.

1-6-103-6A-R20 - Big Data Analytics using R

1. Understand data and classification of digital data.
2. Understand Big Data Analytics.
3. Load Data into R.
4. Organize data in the form of R objects and manipulate them as needed.
5. Perform analytics using R programming.

1-6-103-7A-R20 - Data Science using Python

1. Understand the basic concepts of Data Science.
2. Understand why python is useful scripting language for developers.
3. Use standard programming constructs like selection & repetition.
4. Use aggregated Data (List, Tuple and Dictionary).
5. Implement functions and modules.

S P W DEGREE P G COLLEG, TIRUPATI
DEPARTMENT OF COMMERCE
Programme Outcomes of BCOM GENERAL
For the Academic year – 2022-23

PROGRAMME OUTCOMES

After completing three years for Bachelors in Commerce (B.Com) General program,

1. Students would gain a thorough grounding in the fundamentals of Commerce and Finance.
2. The commerce and finance focused curriculum offers a number of specializations and practical exposures which would equip the student to face the modern-day challenges in commerce and business.
3. The all-inclusive outlook of the course offer a number of value based and job oriented courses ensures that students are trained into up-to-date.
4. Learners will be responsible citizens as various academic and co-curricular courses imbibe sensitivity, moral and ethical values among them.

Programme Specific Outcomes (PSO)

PSO 1: To cater to the human resource needs of companies in accounting and auditing, tax laws, financial analysis and costing.
PSO 2: To inspire entrepreneurship and managerial skills in learners so as to enable them to establish and manage business effectively.
PSO 3: To impart the learners with exhaustive and in depth knowledge of financial system and investment decisions.
PSO 4: To enrich the learners with good communication, numerical ability, team work, leadership skills and ethical values.
PSO 5: To enable students with ICT slills through MS Excel and enrich their knowledge for career enhancement.

COURSE OUTCOMES

B.Com - SEMESTER –I

1	1A	Fundamentals of Accounting
2	1B	Business Organization & Management
3.	1C	Business Environment

1A: Fundamentals of Accounting

1. Identify transactions and events that need to be recorded in the books of Accounts.
2. Equip with the knowledge of Accounting process and preparation of final Accounts of Sole Trader.
3. Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
4. Analyze the difference between Cash Book and Pass Book in terms of balance and make reconciliation.
5. Critically examine the Balance Sheets of a Sole Trader for different Accounting Periods.
6. Design new Accounting formulas and principles for Business Organizations.

1B: Business Organization & Management

1. Understand different forms of Business Organizations.
2. Comprehend the nature of Joint Stock Company and formalities to promote a Company.
3. Describe the Social Responsibility of Business towards the society.
4. Critically examine the various Organizations of the Business Firms and judge the best among them.
5. Design and plan to register a Business Firm. Prepare different documents to register a Company at his/ her own.
6. Articulate new models of Business Organizations.

1C : Business Environment

1. Understand the concept of Business Environment.
2. Define Internal & External elements affecting Business Environment.
3. Explain the Economic Trends and its effects on Government polices
4. Critically examine the recent developments In economic and Business policies of the Government.
5. Evaluate and judge the best business policies in Indian Business Environment.
6. Develop the new ideas for creating good Business Environment.

B.Com - Semester – II

1	2A	Financial Accounting
2	2B	Business Economics
3	2C	Banking Theory & Practice

2A - Financial Accounting

1. Understand the concept of Consignment and learn the Accounting treatment of the various aspects of Consignment..
2. Analyze the Accounting process and preparation of Accounts in Consignment and Joint Venture.
3. Distinguish Joint Venture and Partnership and to learn the methods of maintaining records under Joint Venture.
4. Determine the useful life and value of the depreciable assets and maintenance of Reserves in Business Entities.
5. Design an Accounting system for different models of Businesses at his/her own using the principles of existing Accounting system.
6. Learn the Procedure of maintaining varipus Ledger Accounts for Depreciable Assets.

2B-Business Economics

1. Describe the Nature of Economics in dealing with the issues of scarcity of resources.
2. Analyze supply and demand analysis and its impact on Consumer Behaviour.
3. Evaluate the factors such as Production and Costs affecting firm's behaviour .
4. Recognize market failure and the role of Government in dealing with those failures.
5. Use Economic Analysis to evaluate controversial issues and polices.
6. Apply Economic models for managerial problems, identify their relationships and formulate the decision making tools to be applied for Business.

2C-Banking Theory & Practice

1. Understand the basic Concepts of Banks and Functions of Commercial Banks
2. Demonstrate an awareness of Law & practice in a Banking context.
3. Engage in critical analysis of the practice of Banking Law
4. Organize information as it relates to the regulation of Banking Products and Services
5. Critically examine the current scenario of Indian Banking System
6. Formulate the procedure for better service to the customers from various banking innovations.

B.COM- SEMESTER – III

1	3A	Advanced Accounting
2	3B	Business Statistics
3.	3C	Marketing

3A – Advanced Accounting

1. Able to prepare Debtors Ledger, Creditors Ledger Adjustment Accounts.
2. Understand the Concept of Non-Profit Organizations and its Accounting Process.
3. Comprehend the Concept of Single Entry System and Preparation of Statement of Affairs.
4. Familiarize with the Legal Formalities at the time of Dissolution of the Firm.
5. Prepare Financial Statements for Partnership Firm on Dissolution of the Firm.
6. Employ Critical Thinking Skills to understand the Difference between the Dissolution of the Firm and Dissolution of Partnership.

3 B – Business Statistics

1. Statistics can help in providing a better understanding and exact description of a phenomenon of market nature.
2. In statistics the three most common measures of central tendency are the mean, median and mode. After studying these three measure the students can able to understand the average of variables.
3. Formulate Complete, Concise and Correct Mathematical Proofs.
4. The action or process of distribution they are discussed in variance of dispersion.It can useful to the student to find the average distance of the item from an average and it is also useful to understand range of variable, quartile deviation and standarddeviation etc.,
5. A correction coefficient is a numerical measure of some type of correction. It can help the student to measure of the strength of linear relationship between two or more variables and to know now strongly two variables are related and one believes that the relationship.
6. Finally the purpose of to study the index numbers is to know the time to time changes in money value, market, prices, quantity etc., through this chapter students can able to identify the changes of money value and it is also useful to the student in their real life.

3 C – Marketing

1. Understand and Practice the Terminology, the Concept of Marketing, 4 Ps' of Marketing and Marketing Environment.
2. Observing Consumer Buying Behaviour by Market Segmentation.
3. Study Product Life Cycle, New Products, Product Mix and Product Line Decisions.
4. Analyze the Factors influencing Price and Pricing Decisions.
5. Frame Strategies for Skimming and Penetration Pricing.
6. Selecting the suitable Distribution Channels for various businesses.

SEMESTER – IV

1	4A	Corporate Accounting
2	4B	Cost and Management Accounting
3	4C	Income Tax
4	4D	Business Laws
5	4E	Auditing
6	4F	Goods and Services Tax

4A – Corporate Accounting

1. **Understand the Accounting Treatment of Share Capital and Aware of Process of Book Building.**
2. **Demonstrate the Procedure for Issue of Bonus Shares and Buy-Back of Shares.**
3. Comprehend the Important Provisions of Companies Act 2013, and prepare Final Accounts of a Company with Adjustments.
4. **Participate in the Preparation of Consolidated Accounts for a Corporate Group.**
5. **Understand Analysis of Complex Issues, Formulation of Well-reasoned arguments and reaching better conclusions.**
6. **Communicate Accounting Policy Choices with reference to relevant Laws and Accounting Standards.**

4B – Cost and Management Accounting

1. **Understand various Costing Methods and Management Techniques.**
2. **Apply Cost and Management Accounting Methods for both Manufacturing and Service Industry.**
3. **Prepare Cost Sheet, Quotations and Tenders to Organizations for different works.**
4. **Analyze Cost – Volume – Profit Techniques to determine Optimum Managerial Decisions.**
5. **Compare and Contrast the Financial Statements of Firms and interpret the results.**
6. **Prepare Analysis of various decisions, using relevant Management Techniques.**

4C – Income Tax

1. Acquire the Complete Knowledge of the Tax Evasion, Tax Avoidance and Tax Planning.
2. Understand the Provisions and Compute Income Tax for various Sources.

3. Grasp Amendments made from Time-to-Time in Finance Act.
4. Compute Total Income and Define Tax Complicacies and Structure.
5. Prepare and File IT Returns of Individual at his own.
6. Compute Total Income and Taxable Income under various Heads of Income.

4D – Business Laws

1. Understand the Legal Environment of Business and Laws of Business.
2. Highlight the security aspects in the present Cyber-Crime Scenario.
3. Apply Basic Legal knowledge to Business Transactions.
4. Understand the various provisions of Company Law.
5. Engage Critical Thinking to predict Outcomes and recommend appropriate action on issues relating to Business Associations and Legal Issues.
6. Integrate Concept of Business Law with Foreign Trade.

4E – Auditing

1. Understand the Meaning and Necessity of Audit in Modern Era.
2. Comprehend the Role of Auditor in avoiding the Corporate Frauds.
3. Identify the steps involved in performing Audit Process.
4. Determine the appropriate Audit Report for a given Audit Situation.
5. Apply Auditing Practices to different types of Business Entities.
6. Plan an Audit by considering Concepts of Evidence, Risk and Materiality.

4F – Goods and Services Tax

1. Understand the Terminology and Concepts of GST.
2. Learn the Comprehensive Structure of GST Models in India.
3. Knowing the Taxes and Duties Outside the Purview of GST.
4. Identify the transactions covered under GST.
5. Determine the Procedure for Input Tax Credit and Distribution of Credit.
6. Learn the Procedure of Filing Periodical Returns and Records to be maintained under GST.

Semester – V
Semester Internship

Semester - VI

1	2-6-101-20B-R20	Life Insurance
2	2-6-101-21B-R20	General Insurance
3	2-6-101-18A-R20	Management Accounting
4	2-6-101-19A-R20	Cost Control Techniques
5	2-6-101-16C-R20	Digital Marketing
6	2-6-101-17C-R20	Service Marketing

2-6-101-20B-R20 - Life Insurance

1. Understand the features of Life Insurance, schemes and policies and Insurance Companies in India.
2. Analyze various schemes and policies related to Life Insurance sector.
3. Choose suitable insurance policy for given situation and respective persons.
4. Acquire insurance agency skills and other administrative skills.
5. Acquire skill of settlement of chains under various circumstances.

2-6-101-21B-R20 - General Insurance

1. Understand the features of General Insurance and Insurance Companies in India.
2. Analyze various schemes and policies related to general insurance sector.
3. Choose suitable insurance policy under health, fire, motor and marine insurances.
4. Acquire general insurance agency skills and administrative skills.
5. Apply skill for settlement of claims under various circumstances.

2-6-101-18A-R20 - Management Accounting

1. Understand the nature and scope of Management Accounting and differentiate Management Accounting and financial accounting and cost accounting.
2. Compute Ratios and draw inferences.
3. Analyze the performance of the organization by preparing funds flow statement.
4. Analyze the performance of the organization by preparing cash flow statement.
5. Prepare cash budget, fixed budget and flexible budget.

2-6-101-19A-R20 - Cost Control Techniques

1. Differentiate Cost Control, Cost Reduction concepts and identify effective techniques.
2. Evaluate operating cost for transport Organizations.
3. Analyze and apply CVP analysis for profit planning, selection of product mix, sales mix, make or buy decisions.
4. Understand the concept of standard cost and analyze the variances relating to materials..
5. Preparation of process costing with normal loss, abnormal loss and abnormal gains.

2-6-101-16C-R20 - Digital Marketing

1. Analyze online micro and macro environment.
2. Design and create web site.
3. Discuss search engine marketing.
4. Create blogs, videos and share.
5. Creating and tracking e - mailers.

2-6-101-17C-R20 - Service Marketing

1.Discuss the reasons for growth of service sector.
2. Examine the marketing strategies of Banking services, insurance and education services.
3. Review conflict handling and customer Reponses in service marketing.
4. Describe segmentation strategies in service marketing.
5. suggest measures to improve services quality and their service delivery.

SPW Degree & PG College

DEPARTMENT OF BOTANY

Course Outcomes

Course Code	Course Name	Objectives	Course Outcomes
Semester-I:Paper-I	**Title: Microbial world and non vascular plants.**	➢ To acquire knowledge about basic definitions, facts and concepts of microbial diversity along with the useful and harmful aspects of microbes. ➢ To acquire knowledge about basic definitions, facts and concepts of Thallophytes along with the useful and harmful aspects of Algae and Fung and Bryophyta. ➢ To impart laboratory observation skills. ➢ To develop scientific attitude,laboratory discipline and interest.	➢ Understand the diversity within the microbial world. ➢ Know the structure of viruses and differentiate the Viroids and Prions. ➢ Understand the diseases of plants and animals caused by viruses. ➢ Appreciate the use of microbes in food, agriculture and Industry. ➢ Understand the diversity of algae in structure, pigments and alternation of generations. ➢ Understand the classification of fungi their economic importance. ➢ Understand the classification of Bryophyta their economic importance.

Semester-II:Paper-II	**Title: Basics of vascular plants & Phyto geography**	➢ To acquire knowledge about basic definitions, facts and concepts of Archaegoniate diversity along with the lifecycles of specific individuals. ➢ To acquire knowledge about basic definitions,facts and concepts of Plant anatomy by understanding the internal morphology of plants. ➢ To impart laboratory observations kills. ➢ To develop scientific attitude,laboratory discipline and interest.	➢ Understand the diversity and classification of Bryophytes,Pteridophytes and Gymnosperms. ➢ Understand the sporophyte evolution in Bryophytes. ➢ Comprehend the knowledge on heterospory and how it leads to evolution of seed habit in Pteridophytes. ➢ Know the evolution of stele in Pteridophytes. ➢ Understand the economic importance of Gymnosperms. ➢ Know the plant tissues,like simple and complex which they form the complete plant body. ➢ Identification and differentiation of meristematic and permanent tissues in plants. ➢ Understand the role of secondary growth in wood formation and differentiate the

			Anomalous secondary growth in plants. ➢ Understand the economic importance of Teakwood,Rosewood and Red sanders.
Semester-III:Paper-III	**Title:** Anatomy, embryology,Plant ecology & biodiversity	➢ To acquire knowledge about basic definitions, facts and concepts of classification systems of Angiosperms and Angiospermic families along with the useful and harmful aspects of plants of prescribed Angiospermic families. ➢ To acquire knowledge about basic definitions, facts and concepts and mechanisms of biological processes of plant embryo formation and development ➢ To impart laboratory observation skills specifically related to the observation of floral characters useful in plant identification. ➢ To develop scientific attitude,laboratory discipline and interest	➢ Understand the basic principles in Taxonomy-Description, Identification, Nomenclature and Classification. ➢ Know the use of taxonomic resources like Herbarium, Flora and Keys for identification of plant species. ➢ Learn the techniques of preparing the herbarium and its usage. ➢ Differentiate the natural,artificial and phylogenetic classification systems. ➢ Understand the Key/diagnostic features of taxonomic families and applied the knowledge in as certain the plants to the respective families. ➢ Know the reproductive events from the development of reproductive cells (Gametes), pollination, fertilization, embryogeny and seed development in flowering plants. ➢ Appreciate the adaptations for pollination,especially for encouraging cross-pollination in flowering plants. ➢ Comprehend the knowledge on pollen-pistil interaction and in compatibility in flowering plants.

Semester-IV:Paper-IV & V	**Title:** P-IV Plant physiology and metabolism Iii ZBC (EM),(TM) P-V Cell biology, Genetics and plant breeding	➢ To acquire knowledge about basic definitions,facts and concepts of Plant physiology. ➢ To acquire knowledge about basic definitions,facts and concepts of Plant metabolism and biochemical processes related to plant internal biochemical reactions. ➢ To impart laboratory observation skills related important processes	➢ Know the basic aspects of plant physiology like photosynthesis, respiration and Mineral nutrition. ➢ Understand the importance of plant water relations for the growth and development of plants ➢ Comprehend the relation of water status-Stomatal movements–Transpiration. ➢ Know the role of macro and micro nutrients for the growth and development of plants.

		Related to the life of plants. ➢ To develop scientific attitude,laboratory discipline and interest.	➢ Appreciate the role of some microbes like Rhizobium in Biological Nitrogen fixation. ➢ Appreciate the diversity of plants like C_3 C_4 and CAM plants with respect to their carbon reduction pathways. ➢ Understand the role of plant hormones in plantgrowth development. ➢ Know the importance of Physical factors like light and temperatures in switching of plants from vegetative to reproductive stage. ➢ Know the morphological and physiological changes associated with senescence of plants And plant parts.
Semester-V:Paper-V	P-V Plant Tissue Culture Mushroom cultivation Vegetables cultivation methods Vegetables Post Harvesting methods	➢ To acquire knowledge about basic definitions, facts and concepts of Plant cell biology mainly related to cell ultra structures. ➢ To acquire knowledge about basic definitions, facts and concepts of Genetics along with the process of inheritance of specific traits. ➢ To acquire knowledge about basic definitions, facts and concepts of Plant breeding by knowing the processes of plant breeding methods ➢ To impart laboratory observation skills related to important processes related to the life of plants.	➢ Knowing about the cell theory and typical eukaryotic and prokaryotic cells. ➢ Identifying the differences between plant and animal cells through microscopic observations ➢ Understanding the basic concepts of genetic material and it's physical and biochemical natures along with the replication of the genetic material ➢ Understanding the basic concepts of inheritance of the characters from generation to generations and knowing the main basis for this. ➢ Studying the significance and basis of recombination in inheritance ➢ Getting the skills of constructing a genetic map from the frequencies of recombination and

		➢ To develop scientific attitude,laboratory discipline and interest.	applying the concept of Linkage of genes. ➢ Knowing the basic principles and methods of Plant breeding and their applications in the improvement of crops
Semester-V:Paper-VI	**3 months internship**		

		definitions,facts and concepts of Phytogeography. ➢ To acquire knowledge about basic definitions, facts and concepts of biodiversity of plants. ➢ To impart laboratory observation skills. ➢ To develop scientific attitude,laboratory discipline and interest.	Responsible for the ecological balance ➢ Knowing the facts about the ecological factors like light,soil,temperature etc. ➢ Identifying the productivity of the ecosystem by understanding the concepts of energy production and its flow in the ecosystem. ➢ Understanding the centers of distribution of plants by getting knowledge of basics in phytogeography. ➢ Understanding the basics of Biodiversity, its importance, threats and methods of conservation.
Semester-VI:Paper-VII	**Title:** **Nursery ,Gardening &Floriculture**	➢ To acquire knowledge about basic definitions, facts and concepts of Nursery management. ➢ To acquire knowledge about basic definitions, facts and concepts of gardening and floriculture. ➢ To impart laboratory observation skills related to plant gardening techniques. ➢ To develop scientific attitude, laboratory discipline and interest.	➢ Understanding the basics of nursery types and management. ➢ Knowing different types of operations adopted in the outdoor and indoor gardening. ➢ Getting knowledge of tools and equipment employed in gardening. ➢ Knowing the basic concept of kitchen gardening and landscape management. ➢ Appreciating the economic and aesthetic values of different ornamental plants. ➢ Understanding the mechanisms employed in farming the economically important ornamental plants.

Semester-VI:Paper-VIIIA1	**Title:Plants and human welfare**	➢ To acquire knowledge about basic definitions, facts and concepts of Plant Diversity with Reference to the relation between plants and human beings. ➢ To acquire knowledge about basic definitions, facts and concepts of biodiversity management-methodology. ➢ To develop scientific attitude, laboratory discipline and interest.	➢ Understanding the relation between plants and human beings. ➢ Understanding Genetic diversity, Species diversity, Plant diversity at the ecosystem Agro biodiversity and cultivated plant taxa,wild taxa. ➢ Knowing about the Management of plant biodiversity: Organizations associated with biodiversity management-methodology for execution. ➢ Appreciating the Environmental Impact Assessment(EIA),Geographical Information

			SystematicS. ➢ Getting awareness on Conservation of genetic diversity, species diversity ➢ Appreciating the Importance of forestry, their utilization and commercial aspects
Semester-VI:Paper-VIIIA2	**Title: Ethno Botany & Medicinal Botany**	➢ To acquire knowledge about basic definitions, facts and concepts of Ethno botany. ➢ To acquire knowledge about basic definitions, facts and concepts of Indigenous Medicinal Sciences. ➢ To impart laboratory observation skills related to Ethno botany and Indigenous Medicinal Sciences techniques. ➢ To develop scientific attitude,laboratory discipline and interest.	➢ Understanding Ethno botany as an interdisciplinary science and the relevance of ethno botany in the present context. ➢ Appreciating the role of ethno botany in modern medicine with special example. ➢ Understanding the role of ethnic groups in the conservation of plant genetic resources. ➢ Getting knowledge about Biopiracy,Intellectual Property Rights and protection of traditional Knowledge. ➢ Knowing about the History, Scope and Importance of Indigenous Medicinal Sciences like Ayurveda,Sidda and Yunani. ➢ Understanding the Conservation strategies of endangered and endemic medicinal plants

Semester-VI: **Paper-VIII A3**	**Title:Pharmacognosy and Phytochemistry**	➢ To acquire knowledge about basic definitions, facts and concepts of pharmacognosy. ➢ To acquire knowledge about basic definitions, facts and concepts of secondary metabolites. ➢ To impart laboratory observation skills related microscopic evaluation for the identification of crude drugs. ➢ To develop scientific attitude, laboratory discipline and interest.	➢ Understand the importance and role of pharmacognosy in determining the purity of crude drugs. ➢ Know the methods of organoleptic and microscopic evaluation for the identification of crude drugs. ➢ Knowing the secondary metabolite biosynthetic pathways. ➢ Understand the methods foresting the secondary metabolites like alkaloids, phenols,flavonoids, tannins and sterols and applied the learnt knowledge in phytochemistry. ➢ Known the use of enzymes, proteins and amino acids as drugs.

SPW Degree & PG College
Department of Botany
Programme Outcomes (PO's)

PO1: Learn the fundamental principles, basic concepts and scientific theorems related to the basic science subjects and their relevance in their daily life.

PO2: Acquire the skills in handling the scientific equipment and performing the experiments for the collection of scientific data.

PO3: Draw the logical and scientific conclusions from the experimental data and also to compare theoretically.

PO4: Develop the skills of observation, analisation and explaining the facts through novel methods for better understanding.

PO5: Learn and maintain ethical,moral and social values leading to highly cultured and civilized personality to become role model to the younger generation.

PO6: Improve communication skills, life skills to establish good relationship and to upgrade the standards of living.

PO7: Realize pursuit of knowledge as lifelong activity to develop positive attitude and satisfaction which leads to successful life.

PO8: Motivation towards social service, environmental protection to maintain biodiversity/ecological balance.

S.P.W.DEGREE & PG COLLEGE
DEPARTMENT OF ELECTRONICS
B Sc. Electronics (for the students of Electronics subject)
Statement of Course Outcomes : 22-23

SEM I Course: Paper I: Circuit Theory and Electronic Devices

Course Outcomes: By the end of this course, the students will be able to:

1. To explain the basic concepts and laws of DC and AC electrical networks and solve them using mesh and nodal analysis techniques.
2. Apply concepts of electric network topology, nodes, branches, loops to solve circuit problems including the use of computer simulation.
3. Describe working, characteristics and applications of semiconductor devices. Understand and describe the characteristics of diodes.
4. Analyze different parameters and relation between the different terms related to FET and BJT and UJT.
5. Study the circuit construction of a power supply and analyze the working of the regulated power supply.

SEM I Course: Practical I: Circuit Theory and Electronic Devices

Course Outcomes: By the end of this course, the students will be able to:

1. Apply concepts of electric network topology, nodes, branches, loops to solve circuit problems including the use of computer simulation.
2. Apply time and frequency concepts of analysis.
3. Synthesize the network using passive elements.
4. Design and construction of a power supply.

SEM II Course: Paper II: Digital Electronics

Course Outcomes: By the end of this course, the students will be able to:

1. Understand the number systems, Binary codes and Complements.
2. Understand the Boolean algebra and simplification of Boolean expressions.
3. Analyze logic processes and implement logical operations using combinational logic circuits.
4. Understand the concepts of sequential circuits and to analyze sequential systems in terms of state machines.
5. Understand characteristics of memory and their classification.

EM II Course: Practical II: Digital Electronics

Course Outcomes: By the end of this course, the students will be able to:

1. *Develop a digital logic and apply it to solve real life problems.*
2. *Analyze, design and implement combinational logic circuits.*
3. *Classify different semiconductor memories.*
4. *Analyze, design and implement sequential logic circuits.*

SEM III Course: Paper III: Analog Circuits and Communication

Course Outcomes: By the end of this course, the students will be able to:

1. Understand the concepts, working principles and keyapplications of linear integrated circuits.
2. Perform analysis of circuits based on linear integratedcircuits.
3. Design circuits and systems for particular applications usinglinear integrated circuits.
4. Understand the various modulation and demodulationtechniques of analog communications.
5. Analyze different parameters of analog communicationtechniques and also focuses on Transmitters and Receivers.

SEM III Course: Practical III: Analog Circuits and Communication

1. *Understand the fundamentals and areas of applications for the integrated circuits.*
2. *Demonstrate the ability to design practical circuits that perform the desired operation.*
3. *Select the appropriate integrated circuit modules to build a given application.*
4. *Use of different modulation and demodulation techniques used in analog communication.*

SEM IV Course: Paper IV: Microprocessor Systems

Course Outcomes: By the end of this course, the students will be able to:

1. Understand basic architecture of 16 bit and 32 bit microprocessors.
2. Understand interfacing of 16 bit microprocessor with memory and peripheral chipsinvolving system design.
3. Understand techniques for faster execution of instructions and improve speed of operation and performance of microprocessors.
4. Understand RISC based microprocessors.
5. Understand concept of multi core processors

SEM IV Course: Paper IV: Microprocessor Systems

The student can gain good knowledge on microprocessor and implement in practical applications

1. Design system using memory chips and peripheral chips for 16 bit 8086 microprocessor.
2. Understand and devise techniques for faster execution of instructions, improve speed of operations and enhance performance of microprocessors.
3. Understand multi core processor and its advantages

SEM IV Course: Paper V: Microcontroller And Interfacing

Course Outcomes: By the end of this course, the students will be able to:

1. Understand the concepts of microcontroller based system.
2. Understand different instruction and addressing modes of microcontroller
3. Enable design and programming of microcontroller based system.
4. Understand interfacing of peripherals to Microcontroller.
5. Get familiarized with Real time operating system.

SEM IV Course: Practical V: Microcontroller And Interfacing

Course Outcomes: By the end of this course, the students will be able to:

1. The student can gain good knowledge on microcontrollers and implement in practical applications
2. Learn Interfacing of Peripherals to Microcontroller
3. Get familiarized with Real time operating system

SEM V Course:
Paper VI & Practical VI : Industrial Electronics

Course Outcomes: By the end of this course, the students will be able to:

Students after successful completion of the course will be able to:

1. Identify various facilities required to set up a basic Instrumentation Laboratory.
2. Acquire a critical knowledge of various Electrical Instruments used in the Laboratory.
4. Demonstrate skills in using instruments like Rectifiers, Multimeters, Power supplies, Voltage Regulators etc. through hands-on experience.
5. Understand the Principle and operation of different Electronic Heating devices.

SEM V Course:
Paper VII : Electronic Instrumentation

Students after successful completion of the course will be able to:.

1. Identify various facilities required to set up a basic Instrumentation Laboratory.
2. Acquire a critical knowledge of various Electrical Instruments used in the Laboratory.
3. Demonstrate skills of using instruments like CRO, Function Generator, Multimeter etc. through hands on experience.
4. Understand the Principle and operation of different display devices used in the display systems and different transducers
5. Comprehend the applications of various biomedical instruments in daily life like B.P. meter, ECG, Pulse oxymeter etc. and know the handling procedures with safety and security.

SEM V Course: Practical VII : Electronic Instrumentation

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

1. List out, identify and handle various equipment in Instrumentation Laboratory or Electronic Laboratory.
2. Learn the construction, operational principles of various instruments.
3. Demonstrate skills in handling, Maintenance & troubleshooting of different instruments used in the Labs.
4. Acquire skills in observing and measuring various electrical and electronic quantities.
5. Perform some techniques related to Biomedical Instrumentation and measurement of Certain physiological parameters like body temperature, B.P. and sugar levels etc.

S.P.W. DEGREE & PG COLLEGE, TTD

DEPARTMENT OF ELECTRONICS : 2022 - 2023

Program Outcome of B.Sc (MPE)

- The Successful graduates can opt for the higher studies programme in Physics, Mathematics, Electronics as per the three subjects selected in undergraduate programme apart from B.Ed, MCA and PG diploma.

- The graduates can get placements in IT companies, HR services, marketing, startups etc.

- The graduates will be in position to think analytically and execute the ideas into practicality.

- The graduates will acquire sufficient knowledge and communication skills to present the topics of their interdisciplinary subjects in an effective way.

- The graduates will be exposed to ICT technology so that they can used it for their future career.

Signature of Faculty Signature of Lecturer I/C

SPW Degree & PG College, TTD, Tirupati, Department of Physics

Name of the Programme : B.Sc. (EM)
Name of the Specific Programme : ZPC

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

Semester	Course Name	Course Outcomes
I	**Physics Paper I** MECHANICS,WAVES AND OSCILLATIONS Unit I : 1. Mechanics of Particles 2. Mechanics of Rigid body Unit II: 3. Central forces Unit III: 4. Relativistic Mechanics Unit IV: 5. Undamped, Damped and Forced Oscillations Unit V: 6. Wave motion 7. Ultrasonics	**Theory** 1. Understand the Newton's laws of motion and the law of conservation of linear momentum and its application to rocket motion, the concepts of concepts of impact parameter, scattering cross section and Distinguish between elastic and inelastic collisions. 2. Formulate the rotational kinematic relations, learn the working principle of gyroscope and its applications and explain the precessional motion of a freely rotating symmetric top. 3. Analyse 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. 4. State the postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence. 5. Understand the phenomena of simple harmonic motionand the distinction between undamped, damped and forced oscillations and the concepts of resonance and quality factor with reference to damped harmonic oscillator.

	Practical 1 Surface tension of a liquid by 2 Bifilar suspension –Moment of inertia of a regular rectangular body. 3 Rigidity modulus of material of a wire- Dynamic method (Torsional pendulum) 4 Volume resonator experiment 5 Simple pendulum- normal distribution of errors-estimation of time period and the error of the mean by statistical analysis Coupled oscillators	6. State the laws of transverse vibrations in a stretched string and their verification using a sonometer and learn the formation of harmonics and overtones in a stretched string. 7. Acquire knowledge onUltrasonic waves, their production and detection and their applications in different fields. **Practical** 1 Perform experiments on Properties of matter such as the determination of Surface tension of water , Moment of inertia of some regular bodies by bifilar suspension method and rigidity modulus of the material of the wire and compare the experimental values with the standard values. 2 Notice the difference between flat resonance and sharp resonance in case of volume resonator experiment 3 Know how to determine the acceleration due to gravity at a place using Simple pendulum. 4 Verify the laws of transverse vibrations in a stretched springs under vibration.
II	**Physics Paper II** **Waves & Oscillations** Unit I : Oscillatory motion Unit II: Damped oscillators	**Theory** 1. Understand the phenomena of simple harmonic motion and the distinction between un damped, damped and forced oscillations and the concepts of resonance and factor with reference to damped harmonic oscillator 2. State the laws of transverse vibrations in a stretched string and their verification

	Unit III: Wave motion Unit IV: Acoustics Unit V: Ultrasonics **Practical** 1. Simple pendulum 2. Compound pendulum 3. Sonometer 4. Coupled Oscillators 5. Moment of Inertia of a Cylindrical rod 6. Melde's experiment	using a sonometer and learn the formation of harmonics and overtones in a stretched string 3. Develop the knowledge about Ultrasonic waves, their production and detection and their applications in different fields **Practical** 1. Know how to examine the acceleration due to gravity at a place using Simple pendulum and Compound pendulum. 2. Distinguish the difference between flat resonance and sharp resonance in case of sonometer experiment and verify the laws of transverse vibrations in a stretched string using sonometer 3. Differentiate the motion of coupled oscillators and normal modes 4. Operate experiment on Properties of matter such as the determination of Moment of inertia of cylindrical rod 5. Demonstrate the formation of stationary waves on a string in Melde's string experiment
III	**Physics Paper III** **HEAT AND THERMODYNAMICS** Unit I : Kinetic theory of Gases: Unit II: Thermodynamics Unit III: Low temperature Physics: Unit IV: Measurement, Laws and Theories of	**Theory** 1.Develop an understanding on the concepts of Thermodynamics, Thermoelectricity, 2. Low temperature Physics and Quantum theory of Radiation. 3. Develop critical understanding of concept of Thermodynamic potentials and formulation of Maxwell's equations. 4. Get familiarized with the principles of Seebeck effect, Thomson effect and

	Radiation Unit V: Thermoelectricity **Practical:** 1.Specific heat of a liquid –Joule's calorimeter – Barton's radiation correction 2. Specific heat of a liquid by applying Newton's law of cooling correction. 3. Heating efficiency of electrical kettle with voltages. 4. Thermoemf- thermo couple potentiometer 5. Thermal behavior of an electric bulb (filament/torch light bulb) 6. Study of variation of resistance with temperature - Thermistor.	Peltier effect. 5. Understand the different methods of production of low temperatures and study the applications of substances at low temperatures. 6. Examine the nature of black body radiations. **Practical** Perform basic experiments in thermal Physics, such as, variation of thermo-emf of a thermocouple with temperature difference at its two junctions, calibration of a thermocouple , Specific heat of a liquid , efficiencncy of an electric kettle and characteristics of an electric bulb .

IV	**Course IV: ELECTRICITY, MAGNETISM AND ELECTRONICS** Paper IV Unit I: Electric field and Potential Unit II: Capacitance and Dielectrics Unit III: Current Electricity Unit IV: Electromagnetism Electromagnetic induction Unit V: Basic Electronics Digital Electronics **Practical** 1.Figure of merit of a moving coil galvanometer. 2. LCR circuit series/parallel resonance, Q factor 3. Verification of Kirchoff's laws and Maximum Power Transfer theorem. 4. PN Junction Diode Characteristics 5. Zener Diode –V-I Characteristics 6. Logic Gates- OR, AND,NOT and NAND gates. Verification of Truth Tables.	**Theory** 1.Develop an understanding on the concepts of Electricity, Magnetism and Electronics and their applications. 2. Understand the Gauss's law in electrostatics and the concepts of electric potential, equipotential surfaces and the classifications of dielectric materials. 3. Distinguish between magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances. 4. Comprehend the role and importance of Faraday's laws and Lenz 's law in electromagnetic induction. 5. Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents. 6. Understand theKirchoff's laws and its application to Wheatstone's bridge 7. Disseminate the fundamentals of digital electronics and principles of p-n junction diodes and transistors. **Practical** 1.measure the current sensitivity and figure of merit of a moving coil galvanometer. 2. observe the resonance condition in LCR series and parallel circuits. 3. understand the operation of PN junction diode, Zener diode and a transistor and their V-I characteristics. 4. 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.

	Course V: MODERN PHYSICS UNIT-I: Atomic and Molecular Physics UNIT-II : Fundamentals of Quantum theory UNIT-III: Matter Waves and Uncertainty principle UNIT-IV: Nuclear Physics UNIT-V: Nanomaterials Superconductivity **Practical Course V: Modern Physics** 1.Verification of inverse square law of light using photovoltaic cell. 2. Determination of the Planck's constant using of at least 4 different colours. 3.Study of absorption of α-rays.Determination of M & H. 4. Analysis of powder X-ray diffraction pattern to determine properties of crystals. 5. Energy gap of a semiconductor using junction diode. 6. Energy gap of a semiconductor using thermistor	1.Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum theory and nuclear physics. 2. Develop critical understanding of concept of Matter waves and Uncertainty principle. 3. Get familiarized with the phenomenon of photoelectriceffect and Compton effect 4. Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features of Nuclear models and different nuclear radiation detectors. 5. Classify Elementary particles based on their mass, charge, spin, half life and interaction. 6. Increase the awareness and appreciation of superconductors and their practical applications. 7. Develop an understanding on the nanomaterials, their properties and applications. 8. Conduct experiments using skills appropriate to the units **Practical** 1.understand how the Planck's constant can be determined using Photocell and LEDs. 2. determine the Energy gap of a semiconductor using thermistor and junction diode.

V	**Course 6C: Theory** **APPLICATIONS OF ELECTRICITY & ELECTRONICS** Unit-I: Introduction to passive elements Unit-II: Power Sources (Batteries) Unit-III: Alternating Currents Unit-IV: Power Supplies (Skill Based) Unit-V: Applications of Electromagnetic Induction **Practical 6C Applications of Electricity & Electroni.**. 1. Acquainting with the soldering techniques 2 Connect two or three resistors or capacitors or inductors and measure the Series, Parallel Combination values using a Multimeter and compare the values with the Calculated values 3. Use the Digital Multimeter and Analog Multimeter to measure the output voltage of an AC &DC power supply and also the voltage and frequency of a AC signal using CRO. 4.Use the Multimeter to check the functionality of a Diode and Transistor. Also test whether the given	**Theory** 1. Identify various components present in Electricity& Electronics Laboratory. 2. Acquire a critical knowledge of each component and its utility (like resistors, capacitors, inductors, power sources etc.). 3. Demonstrate skills of constructing simple electronic circuits consisting of basic circuit elements. 4. Understand the need & Functionality of various DC & AC Power sources. 5. Comprehend the design, applications and practices of various electrical & Electronic devices and also their trouble shooting. **Practical** 1. List out, identify and handle various equipment in Electrical & Electronics laboratory. 2. Learn the procedures of designing simple electrical circuits. 3. Demonstrate skills on the utility of different electrical components and devices. 4. Acquire the skills regarding the operation, maintenance and troubleshooting of various Devices in the lab. 5. Understand the different applications of Electromagnetic induction

	transistor is PNP or NPN. 5. Construct a series electric circuit with R, L and C having an AC source and study the frequency response of this circuit. Find the Resonance Frequency. 6.Test whether a circuit is a Open circuit or Short Circuit by measuring continuity with a Multimeter and record your readings **Course 7C: Electronic Instrumentation** **Theory** UNIT-I: Introduction To Instruments UNIT-II: Oscilloscope UNIT-III: Transducers UNIT-IV: Display Instruments UNIT-V: Biomedical Instruments **Practical** **Course 7C: Electronic Instrumentation** 1.Familiarisation of digital multimeter and its usage	**Theory** 1. Identify various facilities required to set up a basic Instrumentation Laboratory. 2. Acquire a critical knowledge of various Electrical Instruments used in the Laboratory. 3. Demonstrate skills of using instruments like CRO, Function Generator, Multimeter etc. through hands on experience. 4. Understand the Principle and operation of different display devices used in the display systems and different transducers 5. Comprehend the applications of various biomedical instruments in daily life like B.P. meter, ECG, Pulse 8ximeter etc. and know the handling procedures with safety and security. **Practical** 1. List out, identify and handle various equipment in Instrumentation Laboratory or Electronic Laboratory.

	in the measurements of (i) resistance (ii) current, (iii) AC & DC voltages and for (i) continuity test (ii) diode test and (iii) transistor test 2. Display the numbers from 0 to 9 on a single Seven Segment Display module by Applying voltages. 3.Display the letters a to h on a single Seven Segment Display module by applying voltages. 4. Measurement of body temperature using a digital thermometer and list out the error and corrections. 5. Measurement of Blood Pressure of a person using a B.P. meter and record your values and analyze them. 6. Observe and understand the operation of a Digital Pulse 9oximeter and measure the pulse rate of different people and understand the working of the meter.	2. Learn the construction, operational principles of various instruments. 3. Demonstrate skills on handling, Maintenance & trouble shooting of different instruments used in the Labs. 4. Acquire skills in observing and measuring various electrical and electronic quantities. 5. Perform some techniques related to Biomedical Instrumentation and measurement of Certain physiological parameters like body temperature, B.P. and sugar levels etc.
VI	**Semester Internship**	

SPW Degree & PG College, TTD, Tirupati, Department of Physics

Name of the Programme : B.Sc. (EM)
Name of the Specific Programme : MPC, MPE, MPCs

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

Semester	Course Name	Course Outcomes
I	**Theory** **Physics Paper I** **MECHANICS, WAVES AND OSCILLATIONS** Unit I: 1. Mechanics of Particles 2. Mechanics of Rigid bodies Unit II: 3. Motion in a Central Force Field**.** Unit III: 4. Relativistic Mechanics Unit IV: 5.Undamped, Damped and Forced oscillations 6. Coupled oscillations Unit V: 7. Vibrating Strings 8. Ultrasonics	**Theory** 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. Apply the rotational kinematic relations, the principle and working of gyroscope and itapplicationsand the precessional motion of a freely rotating symmetric top. 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. Understand postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence. Examinephenomena of simple harmonic motionand the distinction between undamped, damped and forced oscillations and the concepts of resonance and quality factor with reference to damped harmonic oscillator. Appreciate the formulation of the problem of coupled oscillations and solve

	Practical 1 Surface tension of a liquid by 2 Bifilar suspension –Moment of inertia of a regular rectangular body. 3 Rigidity modulus of material of a wire-Dynamic method (Torsional pendulum) 4 Volume resonator experiment 5 Simple pendulum- normal distribution of errors- estimation of time period and the error of the mean by statistical analysis 6 Coupled oscillators	them to obtain normal modes of oscillation and their frequencies in simple mechanical systems. Figure outthe 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. **Practical** 1 Perform experiments on Properties of matter such as the determination of Surface tension of water , Moment of inertia of some regular bodies by bifilar suspension method and rigidity modulus of the material of the wire and compare the experimental values with the standard values. 2 Notice the difference between flat resonance and sharp resonance in case of volume resonator experiment 3 Know how to determine the acceleration due to gravity at a place using Simple pendulum. 4 Verify the laws of transverse vibrations in a stretched springs under vibration.
II	**Theory** **Physics Paper II** **WAVE OPTICS** Unit I : Interference of light Unit II: Diffraction of light Unit III: Polarisation of light	**Theory** 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.

	Unit IV: Aberrations and Fibre Optics Unit V: Lasersand Holography **Practical** 1 Determination of radius of curvature of a given convex lens-Newton's rings. 2 Determination of wavelength of light using diffraction grating-normal incidence method. 3 Dispersive power of a prism. 4 Resolving power of a telescope. 5 Determination of thickness of a thin wire by wedgemethod 6 Determination of refractive indexof liquid-Boy'smethod	2 Distinguish between Fresnel's diffraction and Fraunhoffer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating. 3 Describe the construction and working of zone plate and make the comparison of zone plate with convex lens. 4 Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.. 5 Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields. 6 Explain about the different aberrations in lenses and discuss the methods of minimizing them. 7 Understand the basic principles of fiber optic communication and explore the field of Holography and Nonlinear optics and their applications **Practical** 1 Gain hands-on experience of using various optical instruments like spectrometer, making finer measurements of wavelength of light using Newton Rings experiment and diffraction grating etc, 2 Know the techniques involved in measuring of the dispersive power of the material of the prism and the resolving power of telescope 3 Be familiar with the determination of refractive index of liquid by

		Boy's methodand the determination of thickness of a thin wire by wedge method. .
III	**Physics Paper III Theory** **HEAT AND THERMODYNAMICS** Unit I : Kinetic Theory of gases Unit II: Thermodynamics Unit III: Thermodynamic Potentials and Maxwell's equations Unit IV: Low temperature Physics Unit V: Quantum theory of radiation **Practical:** 1.Specific heat of a liquid –Joule's calorimeter –Barton's radiation correction 2. Specific heat of a liquid by applying Newton's law of cooling	**Theory** 1.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 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. 3. Understand the working of Carnot's ideal heat engine, Carnot cycle and its efficiency 4. Develop critical understanding of concept of Thermodynamic potentials,the formulation of Maxwell's equations and its applications. 5.Differentiate between principles and methods to produce low temperature and liquefy air and also understand the practical applications of substances at lowtemperatures. 6. Examine the nature of black body radiations and the basic theories. **Practical** Perform basic experiments in thermal Physics, such as, variation of thermo-emf of a thermocouple with temperature difference at its two junctions,

	correction. 3. Heating efficiency of electrical kettle with varying voltages. 4. Thermoemf- thermo couple potentiometer 5. Thermal behavior of an electric bulb (filament/torch light bulb) 6. Study of variation of resistance with temperature - Thermistor.	calibration of a thermocouple , Specific heat of a liquid , efficiencncy of an electric kettle and characteristics of an electric bulb .
IV	**Physics Paper IV Theory** **ELECTRICITY, MAGNETISM AND ELECTRONICS** Unit I: Electrostatics Dielectrics Unit II: Magnetostatics Electromagnetic Induction Unit III: Alternating currents Electromagnetic waves-Maxwell's equations Unit IV: Basic Electronic devices Unit V: Digital Electronics	**Theory** 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. 2. Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances. 3. Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents. 4. Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves. 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. 6. Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors *7.* Understand the operation of basic logic gates and universal gates and their

	Practical 1.Figure of merit of a moving coil galvanometer. 2. LCR circuit series/parallel resonance, Q factor. 3. Verification of Kirchoff's laws and Maximum Power Transfer theorem. 4. PN Junction Diode Characteristics 5. Zener Diode –V-I Characteristics 6. Logic Gates- OR, AND,NOT and NAND gates. Verification of Truth Tables. **Physics: IV Semester Theory** **MODERN PHYSICS** Unit I: Atomic and Molecular Physics Unit II: Matter waves&Uncertainty Principle Unit III: Quantum (Wave) Mechanics Unit IV: Nuclear Physics Unit V: Nano materials Superconductivity	truth tables. **Practical** 1.measure the current sensitivity and figure of merit of a moving coil galvanometer. 2. observe the resonance condition in LCR series and parallel circuits. 3. understand the operation of PN junction diode, Zener diode and a transistor and their V-I characteristics. 4. 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. **Theory** 1.Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum mechanics and nuclear physics. 2. Develop critical understanding of concept of Matter waves and Uncertainty principle. 3. Get familiarized with the principles of quantum mechanics and the formulation of Schrodinger wave equation and its applications. 4. Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features of Nuclear models and different nuclear radiation detectors. 5. Classify Elementary particles based on their mass, charge, spin, half life and interaction. 6. Get familiarized with the nano materials, their unique properties and applications.

	Practical Course V: Modern Physics Practical 1.Verification of inverse square law of light using photovoltaic cell. 2. Determination of the Planck's constant using LEDs of at least 4 different colours. 3.Study of absorption of α-rays.Determination of M & H. 4. Analysis of powder X-ray diffraction pattern to determine properties of crystals. 5. Energy gap of a semiconductor using junction diode. 6. Energy gap of a semiconductor using thermistor	7. Increase the awareness and appreciation of superconductors and their practical applications. **Practical** 1.understand how the Planck's constant can be determined using Photocell and LEDs. 2. determine the Energy gap of a semiconductor using thermistor and junction diode.
V	**Physics Paper V Theory** **Electricity, Magnetism & Electronics** Unit I : 1. Electric field intensity and potential 2. Dielectrics Unit II: 1. Electric and magnetic fields 2. Electromagnetic induction Unit III: 1. Alternating currents and electromagnetic waves 2. Maxwell's equations Unit IV: Basic electronics	**Theory** 1. Understand the Gauss law and its applications to obtain electric field in different cases and formulate the relationship between electric displacement vector, electric polarization, Susceptibility, Permittivity and Dielectric constant 2. Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances 3. Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents

	Unit V: Digital electronics **Practical** 1. Verification of Kirchoff's laws & verification of Maximum power transfer theorem 2. LCR series & parallel resonance circuits 3. Figure of merit of moving coil galvanometer 4. PN junction diode characteristics 5. Zenar diode characteristics *6.* IC logic gates	4. Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves 5. Examine the Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q- factor, Power factor and the comparative study of series and parallel resonant circuits 6. Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors 7. Understand the operation of basic logic gates and universal gates and their truth tables **Pracrical** 1. Examine Voltage and current laws 1. Examine the current sensitivity and figure of merit of a moving coil galvanometer 2. Evaluate the resonance condition in LCR series and parallel circuit 3. Understand the operation of PN junction diode and Zener diode and their V-I characteristics 4. 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

	Physics Paper VI **Modern Physics** Unit I : Atomic and molecular physics Unit II: Matter waves & Uncertainty Principle Unit III: Quantum (wave) mechanics Unit IV: 1. General Properties of Nuclei 2. Radioactivity decay Unit V: 1. Crystal Structure 2. Superconductivity **Practical** 1. Characteristics of LDR 2. Energy gap of a semiconductor using Thermister 3. Forbidden energy gap of a semiconductor using junction diode 4. Determination of M & H 5. Determination of Plank's constant 6. Analysis of powder XRD	1. Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum mechanics and nuclear physics. 2. Develop critical understanding of concept of Matter waves and Uncertainty principle. 3. Remember the principles of quantum mechanics and the formulation of Schrodinger wave equation and its applications 4. Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features of nuclear models and different nuclear radiation detectors 5. Classify Elementary particles based on their mass, charge, spin, half life and interaction 6. Remember the nano materials, their unique properties and applications. Increase the awareness and appreciations of superconductors and their practical applications **Practical** 1. Examine the characteristics of LDR 2. Understand how the Planck's constant can be determined using Photocell and LEDs 3. Evaluate the Energy gap of a semiconductor using thermistor and junction diode 4. Compare the magnetic fields and determine M & H 5. Examine crystal properties by XRD

V	**Course 6C: Theory** **APPLICATIONS OF ELECTRICITY & ELECTRONICS** Unit-I: Introduction to passive elements Unit-II: Power Sources (Batteries) Unit-III: Alternating Currents Unit-IV: Power Supplies (Skill Based) Unit-V: Applications of Electromagnetic Induction **Practical 6C Applications of Electricity & Electroni..** 1. Acquainting with the soldering techniques 2 Connect two or three resistors or capacitors or inductors and measure the Series, Parallel Combination values using a Multimeter and compare the values with the Calculated values 3. Use the Digital Multimeter and Analog Multimeter to measure the output voltage of an AC &DC power supply and also the voltage and frequency of a AC signal using CRO. 4.Use the Multimeter to check the functionality of a Diode and Transistor. Also test whether the given transistor is PNP or NPN. 5. Construct a series electric circuit with R, L and C having an AC source and study the frequency response of this circuit. Find the Resonance Frequency. 6.Test whether a circuit is a Open circuit or Short Circuit by measuring continuity with a Multimeter and record your readings	**Theory** 1. Identify various components present in Electricity& Electronics Laboratory. 2. Acquire a critical knowledge of each component and its utility (like resistors, capacitors, inductors, power sources etc.). 3. Demonstrate skills of constructing simple electronic circuits consisting of basic circuit elements. 4. Understand the need & Functionality of various DC & AC Power sources. 5. Comprehend the design, applications and practices of various electrical & Electronic devices and also their trouble shooting. **Practical** 1. List out, identify and handle various equipment in Electrical & Electronics laboratory. 2. Learn the procedures of designing simple electrical circuits. 3. Demonstrate skills on the utility of different electrical components and devices. 4. Acquire the skills regarding the operation, maintenance and troubleshooting of various Devices in the lab. 5. Understand the different applications of Electromagnetic induction

	Course 7C: Electronic Instrumentation **Theory** UNIT-I: Introduction To Instruments UNIT-II: Oscilloscope UNIT-III: Transducers UNIT-IV: Display Instruments UNIT-V: Biomedical Instruments **Practical** **Course 7C: Electronic Instrumentation** 1.Familiarisation of digital multimeter and its usage in the measurements of (i) resistance (ii) current, (iii) AC & DC voltages and for (i) continuity test (ii) diode test and (iii) transistor test 2. Display the numbers from 0 to 9 on a single Seven Segment Display module by Applying voltages. 3.Display the letters a to h on a single Seven Segment Display module by applying voltages. 4. Measurement of body temperature using a digital thermometer and list out the error and corrections.	**Theory** 1. Identify various facilities required to set up a basic Instrumentation Laboratory. 2. Acquire a critical knowledge of various Electrical Instruments used in the Laboratory. 3. Demonstrate skills of using instruments like CRO, Function Generator, Multimeter etc. through hands on experience. 4. Understand the Principle and operation of different display devices used in the display systems and different transducers 5. Comprehend the applications of various biomedical instruments in daily life like B.P. meter, ECG, Pulse 11ximeter etc. and know the handling procedures with safety and security. **Practical** 1. List out, identify and handle various equipment in Instrumentation Laboratory or Electronic Laboratory. 2. Learn the construction, operational principles of various instruments. 3. Demonstrate skills on handling, Maintenance & trouble shooting of different instruments used in the Labs. 4. Acquire skills in observing and measuring various electrical and electronic quantities. 5. Perform some techniques related to Biomedical Instrumentation and measurement of Certain physiological parameters like body temperature, B.P. and sugar levels etc.

	5. Measurement of Blood Pressure of a person using a B.P. meter and record your values and analyze them. 6. Observe and understand the operation of a Digital Pulse 12oximeter and measure the pulse rate of different people and understand the working of the meter.	
VI	**Semester Internship**	

S.P.W.D & PG College, Tirupathi

Department of Chemistry

Programme outcomes, programme specific outcomes and course outcomes for the academic year 2022-23

The Department of Chemistry, SPW Degree & PG College seeks to serve BSc Programme students interested in careers related to Chemistry. The department offers chemistry in six core combinations MPC, CBZ (EM), ZPC, CBCN ,BTZC and CBZ (TM) of BSc. programme. In order to cater to the diverse interests of students and employers, a total of 15 theory and 10 practical courses are offered as part of chemistry domain in all the six combinations.

Programme Outcomes B.Sc.

After successful completion of three year degree program in Chemistry student should be able to;

PO-1. Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry.

PO-2. Solve the problem and also think methodically, independently and draw a logical conclusion.

PO-3. Employ critical thinking and the scientific Knowledge to design, carryout, record and analyze the results of chemical reactions.

PO-4. Create an awareness of the impact of chemistry on the environment, society and development outside the scientific community.

PO-5. Use modern techniques, decent equipment's and Chemistry software's.

PO-6. Find out the green route for chemical reaction for sustainable development.

PO-7. To develop skills in proper handling of apparatus and chemicals.

PO-8. To develop various communications skills such as reading, listening, speaking, etc which we will help in expressing ideas and views clearly and effectively.

PO-9. Imbibed ethical, moral and social values in personal and social life leading to highly cultured and civilized personality.

PO-10. To be familiarized with the emerging areas of chemistry and their applications in various spheres of chemical sciences and to appraise the students of its relevance in future studies.

Programme Specific outcomes

1. B.Sc. Chemistry provides backbone in all the traditional branches of Physical, Inorganic, organic and Analytical chemistry.

2. Gain the knowledge of Chemistry through theory and practicals.

3. Use modern chemical tools, Models, Chem-draw, Charts and Equipment's.

4. Understand good laboratory practices and safety.

5. Develops analytical skills and problem solving skills requiring application of chemical principles.

6. Acquires the ability to synthesize, separate and characterize compounds using laboratory and instrumentation techniques.

7. Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and in industries..

Course Outcomes B. Sc. Chemistry

Semester-I Inorganic and Organic Chemistry

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

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

CO 2.Explain the difference between solid,liquid and gasae interms of intermolecular interactions.

CO 3.Apply the concept of gas equations,pH and electrolytes while study in gother chemistry courses.

Semester-II Organic and General Chemistry

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

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

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

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

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

SEMESTER-III ORGANIC CHEMISTRY & SPECTROSCOPY

Course outcomes:

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

CO 1.Understand preparation, properties and reactions of halo alkanes, halo arenes and oxygen containing functional groups.
CO 2. Use the synthetic chemistry learnt in this course to do functional group trans formations.
CO 3.To propose plausible mechanisms for any relevant reaction

SEMESTER IV

Course IV INORGANIC, ORGANIC AND PHYSICAL CHEMISTRY

Course outcomes:

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

CO 1.To learn about the laws of absorption of light energy by molecules and the subsequent photo chemical reactions.
CO 2. To understand the concept of quantum efficiency and mechanisms of photo chemical reactions.
CO 3.Gain detailed knowledge on classification, preparation and properties of amino acid and protein structure. The link between the peptide bond and its characterization.

CO 4.Understand the preparations, name reactions, basic properties of amines

CO 5.Gain knowledge pertaining to life molecules, different types of carbohydrates, classification, structure and Establishment of Monosaccharides.

SEMESTER-IV

Course V INORGANIC & PHYSICALCHEMISTRY

Course outcomes:

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

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

CO 2.Application of quantization to spectroscopy.

CO 3.Various types of spectra and their use in structure determination

CO 4.Understand the basic concept of the co-ordination compounds, and identify the types of given ligands

CO 5. Understand Effective atomic number (EAN) and make use of that knowledge to calculate EAN for any given complexes

SEMESTER-V

Course 6-B: Analytical methods in Chemistry -I

I. Course Outcomes:

Students after successful completion of the course will be able to:

1. Identify the importance of solvent extraction and ion exchange method.
2. Acquire knowledge on the basic principles of volumetric analysis and gravimetric analysis.
3. Demonstrate the usage of common laboratory apparatus used in quantitativeanalysis.
4. Understand the theories of different types of titrations.
5. Gain knowledge on different types of errors and the irminimization methods

Course 7-B: Analytical methods in Chemistry -II

I. Course Outcomes:

Students after successful completion of the course will be able to:

1. Identify the importance of chromatography in the separation and identification of compounds in a mixture
2. Acquire a critical knowledge on various chromatographic techniques.
3. Demonstrate skills related to analysis of water using different techniques.
4. Understand the principles of spectro chemistry in the determination of metal ions.
5. Comprehend the applications of atomic spectroscopy.

Laboratory Course-I

Practical I Analysis of Salt Mixture

Qualitative inorganic analysis

Course Outcomes:

CO 1 Understand the basic concepts of qualitative analysis of inorganic mixture

CO 2. Use glassware, equipment and chemicals and follow experimental procedures in the laboratory.

CO 3 Apply the concepts of common ion effect, solubility product and concepts related to qualitative analysis.

Laboratory Course-II

Practical-II Volumetric Analysis

Course Outcomes:

CO 1.Use glassware, equipment and chemicals and follow experimental procedures in the laboratory

CO 2.Understand and explain the volumetric analysis based on fundamental concepts learnt in ionic equilibria.

CO 3.Learn and identify the concepts of a standard solutions, primary and secondary standards.

CO 4.Facilitate the learner to make solutions of various molar concentrations. This may include: The concept of the mole, converting moles of grams, converting grams to moles, defining concentration, Dilution of solutions, Making different molar concentrations.

LABORATORY COURSE -III

Practical Course-III Organic preparations and IR Spectral Analysis

Course outcomes:

On the completion of the course, the student will be able to do the following**:**

CO 1.how to use glassware, equipment and chemicals and follow experimental procedures in the laboratory

CO 2.how to calculate limiting reagent, theoretical yield, and percent yield

CO 3.how to engage in safe laboratory practices by handling laboratory glassware, equipment, and chemical reagents appropriately

CO 4.how to dispose of chemicals in a safe and responsible manner

CO5. how to perform common laboratory techniques including reflux, distillation, re crystallization, vacuum filtration.

CO 6.how to create and carry out work up and separation procedures

LABORATORY COURSE-IV

Practical Course-IV Organic Qualitative analysis

Course outcomes:

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

CO 1. Use glassware, equipment and chemicals and follow experimental procedures in the laboratory

CO 2. Determine melting and boiling points of organic compounds

CO 3. Understand the application of concepts of different organic reactions studied in theory part of organic chemistry

CO 4. Acquire the knowledge of nuclear magnetic resonance spectroscopy and infrared spectroscopy for organic structure elucidation.

CO 5. Acquire the knowledge of nuclear magnetic resonance spectroscopy and infrared spectroscopy for organic structure elucidation.

CO 6. Develop insight and analytical thinking on organic spectroscopic techniques to explain general features of adsorption, Beer-Lamberts law and limitations.

Course V LABORATORY COURSE -IV

Practical-Course –V Conductometric and Potentiometric Titrimetry

Course outcomes:

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

CO 1.Use glassware, equipment and chemicals and follow experimental procedures in the laboratory

CO 2.Apply concepts of electrochemistry in experiments

CO 3.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.

LABORATORY COURSE – V

Course 6-B: Analytical methods in Chemistry -I

Course outcomes:

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

1. Estimate Iron(II) using standard Potassium dichromate solution
2. Learn the procedure for the estimation of total hardness of water
3. Demonstrate the determination of chloride using Mohr's method
4. Acquire skills in the operation and calibration of Ph meter
5. Perform the strong acid vs strong base titration using pH meter

Course 7-B: Analytical methods in Chemistry -II

Course outcomes:

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

1. Perform the separation of a given dye mixture using TLC
2. Learn the preparation of TLC plates
3. Demonstrate the separation of mixture of amino acids using paper chromatography
4. Acquire skills in using column chromatography for the separation of dye mixture

SPW Degree & Pg College, Tirupati.
Department of English

Program Outcome for Advanced English for UG

Students will be able to:

PO 1**: *** Critically and analytically read works of literature produced in many different cultures and historical periods
PO 2: * Employ a variety of methods to respond to, evaluate, analyze and understand literary and non literary texts
PO 3: * Examine various literary techniques that writers use in constructing their texts and demonstrate an understanding of these techniques
PO 4: * Demonstrate, through discussion and writing, the understanding of significant cultural and societal issues presented in literature.
PO 5: * Apply critical and technical vocabulary to describe, analyze and formulate an argument about literary and other texts
PO 6: * Write clearly and effectively in a variety of forms, adopting writing and analytical skills to all situations
PO 7: * Identify and evaluate appropriate research sources and incorporating the sources into documented academic writing and formulate original arguments in response to those sources
PO 8: * Recognize and write in accordance with a standardized system for formatting Research papers and citing resources.
PO 9: * Adopt literary, critical and oral skills to communicate effectively in business and graduate school environments
PO 10: * Appreciate literature as a source of practical wisdom, aesthetic pleasure and knowledge of the diversity of human experience

Course Outcome for Advanced English for UG

Semester –I

After completing the course the Learner would be able to:

- Know about the features of Old, Middle English and Renaissance Period.
- Review the aspects of different literary genres, forms and terms.
- Identify the characteristics in Poetry, Drama and Literary Criticism.
- Interpret literature of these periods critically.

Course Outcome for Advanced English for UG –

Semester –II

After completing the course the Learner would be able to:

- Identify the features of Elizabethan and Jacobean Periods.
- Review the aspects of romantic comedy, and the evolution of prose as a genre.
- Distinguish the characteristics that evolved in Poetry, Drama, Prose and Literary Criticism.
- Assess literature of these periods critically.

Course Outcome for Advanced English for UG –

Semester –III

After completing the course the Learner would be able to:

- Know about the features of Elizabethan and Jacobean Periods.
- Recognize the aspects of different literary genres of forms and terms.
- Identify the characteristics in literature that reflected the changing trends in society.
- Interpret literature of these periods critically.

Course Outcome for Advanced English for UG –

Semester –IV Course – IV

After completing the course the Learner would be able to:

- Relate the features of Romantic and Victorian periods.
- Observe the aspects of Poetry and the contribution of women as literary artists.
- Analyze the characteristics in poetry, drama, prose and literary criticism.
- Compare and evaluate literature of these periods critically.

Course Outcome for Advanced English for UG –

Semester –IV Course – V

After completing the course the Learner would be able to:

- Understand the characteristics features of different ages.
- Analyze how language changes.

- Interpret the ways that led to the information of Standard English.

Semester –V Paper – VI A

English Language Teaching Skills

After completing the course the Learner would be able to:

Unit – I Concepts of teaching English as second Language: Understand the central principles of teaching English
Unit – II Contextualization of Grammar teaching and writing skills
Unit – III Teaching English Literature, lesson planning and materials, teach English in a systematic way
Unit – IV Classroom management techniques, assessment and evaluation
Demonstrate different classroom management techniques
Unit – V Teaching English for employment, ICT based ELT: Make use of technology for teaching English

Semester –V Paper – VIIA

Skills and Procedures of Translation

After completing the course the Learner would be able to:

Unit – I Types of Translation and Tools: Understand the central issues of Translation
Unit – II Pragmatic and literary Translation: Use the methods of Translation
Unit – III Strategies, Procedures and problems in Translation from English to Telugu**:** Translate from English to Telugu and Vice-Versa
Unit – IV Translating Short Fiction, Prose, Poetry, Print Media and Advertisements: Translate different Genres
Unit – V Technical Translation and Translation Technology: Make use of Technology for Translation

Semester –VI
Long-Term Internship

S.P.W. Degree & PG College, Tirupati
Department of Biochemistry
COURSE OUT COME

SEMESTER – I Biomolecules : 3-1-101 R20

1. The student gains knowledge in the chemistry of biomolecules such as water, carbohydrates, lipids, proteins and nucleic acids which make up all the living organisms including humans.

2. This will enable the student to understand the importance of these biomolecules in living organisms and effects of their alterations in diseases occurring in plants, animals and humans.

3. The practicals will give the expertise to the student for analysis of any biological or non biological sample for identification of it's chemical composition.

Sem – II Biochemical Techniques: 3-2-101 R20

1. The student will learn the various analytical techniques and their applications in separation and isolation of cells and tissues for studying their functional abnormalities.

2. The knowledge in the analytical techniques will enable the student for isolation, purification and chemical characterisation of compounds from plant and microbes which will have medical or, commercial important.

3. The practicals will provide the expertise to the student for quantification of electrolytes and other metal ions, hormones and identification of bacteria.

4. The expertise gained by the student in course can be useful in food industries, pharma industries, clinical and microbiological labs.

Sem – III Enzymology, Bioenergetics& Intermediary Metabolism: 3-3-101 R20

1. The students will get knowledge in enzymes, their physiological importance and other applications.
2. The students will know how the nutrients such as carbohydrates, lipids and proteins get metabolized for the purpose of energy and other physiological functions in the body. This will enable the student to understand the pathophysiology of metabolic diseases such as diabetes , atherosclerosis etc. which occur due to alteration in metabolisms.
3. The practicals will provide the expertise for quantification of enzymes activities , glucose, proteins and lipid level s in blood which will have clinical applications.

Sem – IV: Physiology, Nutritional and Clinical Biochemistry 3-4-101 R20

1. The student will get knowledge in the different physiological systems and their functions in the human body. By studying blood, its composition and its functions the student will understand the importance of blood.

2. This course will also provide knowledge in hormones, their functions and the diseases occurring due to alterations in the levels of hormones.

3. By studying this course the student will know the nutritional importance of proteins, carbohydrates, lipids, vitamins and minerals.

4. Clinical Biochemistry unit along with practicals will enable the student to do diagnostic tests for liver diseases, Gastro intestinal diseases, renal diseases and nutritional deficiencies.

Sem – IV A: Microbiology, Immunology and Molecular biology 3-4-101 A R20

1. This course will enable the student to know various microbes such as bacteria, fungi and viruses, their structures and other prosperities and diseases caused by them. The student will also get knowledge in their commercial applications by making use of their beneficial effects such as fermentation in alcohol production, nitrogen fixation in agriculture etc.

2. The student will also get knowledge in immune system, vaccines and also understand the pathogenesis of auto immune diseases and immune deficiency diseases.

3. This course will provide knowledge and expertise in molecular biology such as genes, their structure and importance. This will also enable the student to know the applications of PCR in cloning and diagnosis of genetic and viral diseases.

4. The practicals will provide the expertise to the student to work in microbiology laboratory, food and pharma industries, and biotech companies for production of vaccines and other life saving drugs.

Sem- V 6A Clinical Biochemistry 3-5-101 R 20

Course out come: At the end of the course Students will be able to

1. Discuss the safety regulations , instrumentation automation, quality control, first aid in Clinical Biochemistry laboratory .
2. Evaluate the abnormalities which commonly occur in liver and kidney diseases through LFT , RFT , GFR .
3. Determine various substances such as enzymes, hormones etc and their use in diagnosis and monitoring of diseases.
4. Discuss the Clinical significance of elevated lipoprotein, triglycerides and cholesterol.
5. Explain the involvement of enzymes in diagnostics of heart diseases, and also the role of isoenzymes involved in Cardio vascular diseases.

Sem -V 7A Haematological and Immunological Techniques 3-5-101 A R 20

1. Discuss the hazards in Clinical laboratory, references values , factors affecting reference values , quality control and use of external and internal standards.

2. Explain the detailed aspects of blood , Blood clotting mechanism, total Blood count , and lymph.

3. Identify the viral and bacterial disease and explain about the principles of ELISA , western blot , RT-PCR techniques and staining procedures.

4. Explain about auto immunity and auto immune diseases like Hashimotos disease, Thyrotoxicosis, SLE , Rheumatoid Arthritis, Auto immune hemolytic anaemia .

5. Describe about different types of Igs , explain about Antibody production Adjuvants and Haptens .

SPW DEGREE &PG COLLEGE

DEPARTMENT OF BIOCHEMISTRY

PROGRAMME OUT COME

The learners who complete Three year full time UG Programme may involve Academic, Personal and BehaviouralCompetencies. These out comes will provide insight to the faculty members teaching thecourse. The faculty members undergo vigorous Orientation Programme prior to teaching the course. It is expected that a student after completion must have a level of understanding the Biochemistry subject and subareas inconsonance with course outcomes at the end of the course. The programme learning outcomerelated to B.Sc Degree programmewith one subject as Biochemistry can be summarised as under:

I **Academic competence**:-

1. Disciplinary knowledge and understanding of Biochemistry, structure and function of Biological molecules.
2. Explain the process and control of bioenergetics and metabolism.
3. Analyse biochemical data in Enzyme kinetics and Molecular structure analysis and biological data base.
4. Demonstrate and understanding the principles of some biochemical techniques and microbiological methods etc...
5. Demonstrate an experimental learning and critical thinking of the structure and functions of Prokaryotes & Eukaryotes.

II **Personal and behavioural**:-

1. Basic professional skills pertaining to biochemical analysis carrying out Clinical diagnostic tests.
2. Ability to use skills in specific areas of Biochemistry such as Clinical, Health, Agriculture etc..
3. Curiosity and ability to formulate Biochemistry related problems.
4. Having conversational competence including Communication and effective interaction with others, listening, speaking and observational skills.
5. The ability to plan and manage projects in order to achieve objectives.
6. Ability to work in a group realising the power of groups cooperation.
7. Creativity, innovation and risk taking ability.
8. Ability to grasp ideas and turn ideas into action related mechanisms.

S.P.W.D &P.G COLLEGE, TIRUPATI

DEPARTMENT OF BIOTECHNOLOGY

COURSE OUTCOME FOR B.Sc BIOTECHNOLOGY AS PER NEP PATTREN (W.E.F2020-2021) FOR THE YEAR2022-2023

FOR

I, II ,III , IV , V & VI SEMESTERS

S.P.W.D & P.G COLLEGE, TIRUPATI

DEPARTMENT OF BIOTECHNOLOGY

COURSE OUTCOME FOR B.Sc BIOTECHNOLOGY

AS PER CBCS PATTERN (W.E.F2020-2021)

SEMESTER-I CREDITS-4 TEACHING HOURS PER WEEK-4

TITLE- BT101 Biomolecules & Analytical Techniques

On completion of the course the students will be able

- **To create knowledge about principles and applications of various types of analytical techniques**
- **To understand and explain the structure and functions of biomolecules.**
- **To prepare various types of gels .**
- **To understand the basic unit of the organisms.**
- **To identify the organisms by radio active methods.**

TITLE- BT101 (P) Biomolecules & Analytical Techniques

- **To understand the preparation of media for microorganisms.**
- **To analyse the principles of staning methods.**
- **To understand the cultivation of yeast and molds.**

SEMESTER-2 CREDITS-4 TEACHING HOURS PER WEEK-4

TITLE:- BT 201 Microbiology and Molecular Biology & Cell biology

Upon completion of the course

- **The students will be able to understand the chemical structure and base composition of nucleic acids**
- **The students would comprehend the structures of major classes of Nucleic acids.**
- **students will be able to understand the classification and nomenclature of micro organisms.**
- **The students will be able to understand the nature of replicative enzymes.**
- **The students will be able to understand the mechanisms of replication, transcription and translation.**
- **The students will be able to understand the metabolic pathways.**

TITLE:- BT 201(P) Microbiology and Molecular Biology

- **To apply the principles of biochemical reactions for quantitative estimation of biomolecules.**
- **To understand the principle of Enzyme assay methods.**
- **To understand the procedure for preparation of buffers.**
- **To analyse the effect of physical factors on enzyme activity.**

SEMESTER- 3 CREDITS-4 TEACHING HOURS PER WEEK-4

TITLE:- BT: 301 Immunology & r-DNA Technology

Upon completion of the course

- **The students shall be able to understand the principles and applications of Blotting techniques**
- **The students shall be able to understand the different types of PCR principles and applications.**
- **The students shall be able to aware of principles and applications of different types of immune electrophoresis.**
- **To understand the basics structure of cells NK cells.**
- **To understand the principles, advantages, limitations and applications of ELISA used in biology.**
- **The students shall be able to understand the basic principles, concepts of hybridoma technology and mab production.**

To understand the basic concepts of Bioinformatics.

TITLE:- BT: 301 Immunology & r-DNA Technology -PRACTICAL

- **To understand the principles ofGene cloning**
- **Agarose gel electrophoresis for separation of biomolecules.**
- **To analyse the principle of SDS-PAGE electrophoresis of proteins.**
- **To understand the calculation of Mean,Median and mode.**
- **To Analyse the concepts of Data bases and its significance.**

SEMESTER-IV CREDITS-4 TEACHING HOURS PER WEEK-4

TITLE:- BT: 401A Plant& Animal tissue culture

Upon completion of the course the students must have

- **Understand the methods of studying callus culture**
- **Structure and functions of cell lines**
- **Understand the types of cell lines**
- **Understand the various types of Micro propogation and significance .**
- **Understand different types of Recombinant products.**

TITLE:- BT: 401 Plant& Animal tissue culture - PRACTICAL

- **To analyse the principles of different types callus culture.**
- **To understand the production of Somatic hybrids.**
- **To understand the principles of radial immune diffusion.**
- **To Analyse working principle of Preservation methods for cell lines**

SEMESTER-IV CREDITS-4 TEACHING HOURS PER WEEK-4

TITLE:- BT: 401B Environmental & Industrial Biotechnology

Upon completion of the course the students must have

- **Understand the methods of studying Environmental issues**
- **Structure and functions of Ecosystems &Biogeo cycles**
- **Understand the types of Fermentations**
- **Understand the various types of Microorganisms and its significance in fermentation process .**
- **Understand different types of Microbial productions.**

TITLE:- BT: 401B Environmental & Industrial Biotechnology - PRACTICAL

- **To analyse the principles of different types callus culture.**
- **To understand the production of Somatic hybrids.**
- **To understand the principles of radial immune diffusion.**
- **To Analyse working principle of Preservation methods for cell lines**

SEMESTER-V CREDITS-3 TEACHING HOURS PER WEEK-3

TITLE:- 501: Organic farming& Biofertilizers and biopesticides

- **On completion of the course students will be able**

to gain knowledge about plant nutrition .

- **To understand the distribution of soils in India**
- **To get insight in the steps involved in preparation of biofertilizers**
- **To understand the applications of cropping methods.**
- **To explain the significance of crop roation methods**
- **To understand the mechanisms of biological nitrogen fixtation**

TITLE:- 501: Organic farming & biofertilizers and pesticides-PRACTICAL

- **To understand the principles of Quantitative estimation of soil microbes**
- **To isolate rhizobium bacteria from soil.**
- **To understand the principles of crop rotation**
- **To describe the effect of UV radiation on the growth of microorganisms in rhizosphere zone.**
- **Significance of field trips for Regional RARS station,Tirupati.**

Department of Computer Science

Academic Year 2022-23

Course Outcomes

Semester I: Problem Solving In C

1. Understand the evolution and functionality of a Digital Computer.
2. Apply logical skills to analyse a given problem
3. Develop an algorithm for solving a given problem.
4. Understand 'C' language constructs like Iterative statements, Array processing, Pointers, etc.
5. Apply 'C' language constructs to the algorithms towrite a 'C' language program.

Semester II: Data Structures Using C

1. Understand available Data Structures for data storage and processing.
2. Comprehend Data Structure and their real-time applications - Stack, Queue, Linked List, Trees and Graph
3. Choose a suitable Data Structures for an application
4. Develop ability to implement different Sorting and Search methods
5. Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal
6. Design and develop programs using various data structures.
7. Implement the applications of algorithms for sorting, pattern matching etc

Semester III: Database Management Systems

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 databaseusing ER Diagrams and design database schemas based on the model.
5. Create a small database using SQL.
6. Store, Retrieve data in database.

Semester IV: OBJECT ORIENTATED PROGRAMMING THROUGH JAVA

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

Semester IV: OPERATING SYSTEMS

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.
5. Comprehenddifferent approaches for memory management.
6. Understand and identify potential threats to operating systems and the security features design to guard against them.
7. Specify objectives of modern operating systems and describe how operating systems have evolved over time.
8. Describe the functions of a contemporary operating system

Semester V: Web Interface Designing Technologies

1. 1. Understand and appreciate the web architecture and services.
2. 2. Gain knowledge about various component sofa website.
3. 3. Demonstrate skills regarding creation of a static website and an interface to dynamic website.
4. 4. Learn how to install word press and gain the knowledge of installing various plugins to use in their websites.

Semester V:Web Applications Development using PHP & MYSQL

1. Write simple programs in PHP.

2. Understand how to use regular expressions, handle exceptions, and validate data using PHP.

3. Apply In-Built functions and Create User defined functions in PHP programming.

4. Write PHP scripts to handle HTML forms.

5. Write programs to create dynamic and interactive web based applications usi ng PHP and MYSQL.

6. Know how to use PHP with a MySQL database and can write database driven webpages.

Semester VI: Semester Internship

1. To analyse the Problem of developing Project.
2. To designing, coding, and implementing the project.
3. To testing the Project through validation.

DEPARTMENT OF SANSKRIT

HEAD OF THE DEPARTMENT

TEACHING STAFF

UG STUDENTS

BA	B.SC	B.COM
HEP TM	ZBC TM	B COM EM 1
HEP EM	ZBC EM	B COM EM 2
HEE	ZPC	B COM EM 3
HTP	HSC TM	B COM CA 1
HPSA	HSC EM	B COM CA 2
IPSW	BTZC	
EPSW	MPC	
GHPS	MPE	
MAS	MPCS	
ASCA	MSCS	
EPP		
EPS		

4.Result Analysis 2022-2023 For SANSKRIT

Title of the Programme	Total of Students Appeared	Total Pass	Pass Percentage

GROUPS	MAXIMUM	MINIMUM

1 Sem B A	10	9	98
1 Sem B.Com	27	27	100
1 Sem B.Sc	62	60	98
11 Sem B.A	36	36	100
11 Sem B.Com	47	46	98
11 Sem B.Sc	123	115	97
111 B.A	36	34	98
111 B.Com	47	46	98
111 B.Sc	123	120	98

TRERESULTS AND TREND ANALYSIS REPORT FOR INTERNAL EXAMS SANSKRIT 2022-23-3rd SEM

B.A	24 -25	20-21
B.SC	24-25	20-21
B.COM	24-25	20-21

1ST SEM

GROUP	MAXIMUM	MINIMUM
B.A	24-25	20-21
B.SC	24-25	20-21
B.COM	24-25	20-21

SPW Degree & PG College - Tirupati

Department of Sanskrit

Programe Course Out-come

3rd Semester – 2022-23

1. मध्यमव्यायोगः – अयं पाठ्यभागः भासमहाकविना विरचितः। अस्मिन् पठे आर्तान् केशवदासवकुटुम्बीयान् रक्षितुं पाण्डवमध्यमः भामसेनः तान् ररक्ष। अनेन आर्तत्राणपरायणत्वं ज्ञातुं शक्यते। अतःसर्वे छात्रैः अन्येषां आपत्सु सदा सहायकाः भवेयुरिति संसूच्यते अयं पाठ्यभागः।

2. संकल्पबलम् – अयं पाठ्यभागः आचार्य जियस् आर् कृष्णमूर्तिभागैः व रचितम्। अस्मात् पाठात् प्रतिमानवः कदापि मद्यपानं मांसभक्षणं न करणमीयमिति संकल्पः स्वीकरणीयः। छात्रैः एते विषयाः समाचरणीयाः।

3. उपनिषद् –

अ- दकारकथा – अयं पाठ्यभागः बृहदारण्यकोपनिषधः स्वीकृतः। ब्रह्मणः उपदेशं द नाम दमः (इन्द्रियनिग्रहः), द नाम दानमिति, द नाम दया इति देवमानवराक्षसानां कृते उपदेशः। एत विषयाः छात्राः जीवने सुष्ठु ज्ञातव्याः आचरणीयाश्च।

आ- शिष्यनुशासम् - अयं पाठ्यभागः कृष्णयजर्वेदीयतैत्तिरीयोपनिषदः स्वीकृतः। अस्मिन् पाठे विद्याभ्यासानन्तरं शिष्याय जीवनमादर्शप्रायं कर्तुं समाजे सन्तिः प्रवर्तनाय आनन्देन जीवनं परिपूर्णः कर्तुमाचार्योपदेशः दत्तः। एते विषयाः छात्रैः वश्यानुष्ठेयाः।

4. भगवद्गीता- श्रद्धत्रयविभागः – अस्मिन् पाठे श्रद्धात्रैविध्यं नाम सात्त्विका राजसी तमसी गुणानुददिश्य त्रिविध तपांसि त्रिविधदानानि, परमात्मत्रैविध्यं इत्येते विषयाः सुष्ठु भगवता उपदिष्टाः। एते विषयाः छात्रैः वश्यमनुष्ठेयाः।

Programe Course Out-come

2nd Semester – 2022-23

1. इन्दुमतीस्वयम्वरः- अयं पाठ्यभागः महाकवि कालिदासेन विरचित रघुवंशमहाकाव्यात् स्वीकृतः। अस्मिन् पाठे अजमहाराज्ञः उन्नतशीलत्वं, उत्कृष्टतमाः गुणाः. सूर्यवेशे सजातत्वं, स्वयम्वरे सर्वेषां समक्षे विनयवधेयादिगुणप्रकटनम्, इत्यादि विषयाः समुपवर्णेताः। छात्राः सर्वे एते उत्कृष्टतमाः गुणाः अवश्यं भवितव्याः सारभूतःविषयः।

2 .शिष्येभ्यो दीक्षाप्रदानम् – अयं पाठ्यभागः अश्वघोषमहाकविना विरचित बुद्धचरितात् स्वीकृतः। धर्मदीक्षास्वीकरणेन अहिंसा, दया धर्मादि विषयाः काश्यपादि शिष्येभ्यो सुष्ठु उपदिष्टाः। छात्राः सर्वे एते अहिंसा, दया, धर्मादिविषयाः ज्ञातव्याः, आचरणीयाश्च।

3. गङ्गावतरणम्- अयं पाठ्यभागः भोजमहाकविना विरचित चम्पूरामायणस्य बालकाण्डात् स्वीकृतः। अस्मिन् पाठे भगीरथमहाप्रयत्नात् गङ्गा कथं सम्भूता इति ज्ञातुं शक्यते। छात्राः निजजीवन् स्वीयलक्ष्यसिध्यर्थं भगीरथवत् प्रयत्नशीलाः भवेयुरिति सारांशः।

4.महापनोदः – अयं पाठ्यभागः पट्टाभिरावमहोदयेन वुरचित धर्मसौहृदम् इति काव्यात् स्वीकृतः। सुनन्द नाम राजपुत्र्याः कृते गुरुपत्नी धर्मं सुष्ठु उपदिदेश। सर्वदा इन्द्रियनिग्रहः भवितव्यः,मनो निग्रहः भवितव्यः, कदापि गुरुं कामनया न द्रष्टव्यः। गुरोः महत्वं , धर्मगुणं, पूज्यता इत्यादि विषयाः ज्ञातव्याः। एते विषयाः छात्रैः ज्ञेयाः। 5. 5. वन्दे काश्मीरभारतम् – अयं पाठ्यभागः धूलिपाळ्ल रामकृष्म महोदयेन विरचितः । अस्मिन् पाठे कश्मीरप्रान्ते सर्वे पण्डिताः सञ्जाताः। तादृशकास्मीरं सैनिकाः परिरक्षन्ति सैनिकानां भक्त्या, परिरक्षणया, सेवया अखण्डभारतमिदं सुसम्पन्नमस्ति इति। सेवकानां देशभक्तिः, सेवानिरतिः छात्रैः ज्ञातव्यम्।

6. अवन्तीसुन्दरीकथा – अयं पाठ्यभागः दण्डिमहाकविना विरचित दशकुमारचरिते पूर्वपीठिकायाः पञ्चमोच्छासात् स्वीकृतः। अस्मिन् पाठे माळवराज्ञः मानसारस्य पुत्र्याः अवन्तीसुन्दर्याः, मगधराज्ञः राजहंसस्य पुत्रस्य राजवाहनस्य द्वयोः अनुरागः, विवाहश्च वर्णितः।

7. चारुदत्तचरितम् – अयं पाठ्यभागः महालिङ्गशास्त्रिणा विरचित भासकथासारात् स्वीकृतः। ब्राह्मणः चारुदत्त नायकः। गणिकाकुले सञ्जाता वसन्तसेना

नायिका।सुसंस्कारयुक्ताः गुणाः मुख्याः इति न तु कुलादयः इति अस्य पाञ्यभागस्य सारभूतः विषयः।

SPW Degree & PG College - Tirupati

Department of Sanskrit

<u>Programe Course Out-come</u>

1st Semester – 2022-23

1. आर्यपादुकाभिषेकः – समाजस्य मानवीयविषयान् ज्ञापयितुं मुख्यग्रन्थः श्रीमद्रामायणम्। अस्मिन् पाठे पितृवाक्यपरिपालकः श्रीरामः भरतं प्रति सत्यानुष्ठानमुद्दिश्य उपदिश्य हेमभूषितौ पादुकौ अधिरुह्य भरताय ददौ। भरतः तौ पादुकौ स्वीकृत्य नन्दिग्रामं गत्वा तावेवाभिषिच्य भ्रातृभक्तिं प्रदर्श्य राज्यं चकार। अस्मिन् पाठे श्रीरामास्य पितृवाक्यपालनं सत्यनिष्ठत्वं धर्माचरणीयता भरतस्य सेवानिरतिश्च छात्रैः ज्ञातुं शक्यते।

2. यक्षप्रश्नाः - अयं पाठ्यभागः व्यासमहर्षिणा विरचिते महाभारतग्रन्थे वनपर्वणः स्वीकृतः। अस्मिन् पाठे यक्षेण कृत प्रश्नानां धर्मराजः सुष्ठु समाधानं दत्वा स्वानुजान् पुनरुज्जीवयामास। अस्मिन् पाठे अनेके धार्मिकविषयाः लोकसत्यविषयाः आचरणयोग्यविषयाः स्वजीवनं सफलीकर्त्तुमुपयुक्तविषयाः सुष्ठु छात्रैः ज्ञातुं शक्यन्ते।

3. मेवाड राज्यस्थापनम् – अयं पाठ्यभागः श्रीमत्प्रतापराणायनमिति महाकाव्यात् स्वीकृतः। रजस्थानप्रान्ते विष्णुवर्धनयशोवर्धनावपि महमदीयानामुपरि विजयं प्राप्य मेवाडप्रान्ते स्वीयराज्यपालनं चक्रतुः। सर्वदा देशसाहित्य संस्कृतीन् प्रचारं कृत्वा देशप्रजान् चैतन्यान् कारयित्वा देशभक्तिं मातृभक्तिमुद्दिश्य राजस्थानजनपदे चैतन्यमकार्षुः। अतः सर्वेषां छात्राणां देशसाहित्यसंस्कृतस्योपरि श्रद्धा विधेया। मातृभक्तिं देशभक्तिं भवितव्यमिति पाठ्यभागस्य सारांशः।

4. विवकानन्दसूक्तयः - अस्मिन् पाठे विवेकानन्देन युवकानां प्रति निर्भयत्वं लक्ष्यसाधनमार्गः आत्मविश्वासः सज्जन स्वभावः मातृभक्तिः सत्यान्वेषणं गुरुपूजनमित्यादिविषयाः सुष्ठूपदिष्टाः। अतः सर्वे छात्राः विवेकानन्द स्वामिनमादर्शत्वेन स्वीकृत्य जीवनं यापयेयुः। अयं पाठ्यभागः विवेकनन्दसूक्तिसुधा इति पाठ्यभागात् स्वीकृतः।

5. अत्युत्कटैः पापपुण्यैः इहैव फलमश्नुते - नारायणपण्डेन विरचित हितोपदेशग्रन्थात् अयं पाठ्यभागः स्वीकृतः। प्रतिमानवः अत्युत्कटैः पापपुण्यैः कर्मभिः यानि फलानि सन्ति तानयस्मिन् जन्मन्येव त्रिभिः वर्षैः त्रिभिः मासैः त्रिभिः पक्षैः त्रिभिः दिनैर्वा अवश्यमनुभोक्तव्यमवेति छात्रैः ज्ञातव्योयमंशः।

6. शूद्रकवीरवरकथा- नारायणपण्डितेन विरचित हितोपदेशग्रन्थात् अयं पाठ्यभागः स्वीकृतः। वीरवारपात्रद्वारा स्वमिभक्तित्वं औदार्यं त्यागबुद्धिः प्रदर्शितः। छात्रैः उपर्युकतविषयाः ज्ञेयाः।

SPW Degree & PG College - Tirupati
Department of Sanskrit

Internal Question Paper Sem 11-2022-23 **2-03R20**

Time 1Hour Marks 25 Date 15-06-23

1.द्वौ श्लोकौ पूरयित्वा भाश्च लिखत। 2x3=6

अ. इक्ष्वाकुवंश ----- कोसलेन्द्राः।।

आ.कुलेन कान्त्या ----- काश्चनेन।।

इ. पृथक् पृथक् ----------तान्।

ई. भूषितो मुण्डिलो-----धर्मकारणम्।।

2. द्वयोः सम्पूर्णतया शब्दरूपाणि लिखत। 2x3=6

अ. नदीआ.वनम् इ. वधू ई. मधु

3. द्वयोः धातोःलकारे सर्वाणिरूपाणि लिखत। 2x21/2=5

अ. इच्छतु आ. क्रेष्यति

इ. चोरयेत् ई.युध्यते

4. चतुण्रां नामनिर्देशकपूर्वकं सन्धत्त। 4x1=4

1.तत्+लयः 2. तत्+अपि 3.कुर्वन् +एव

4. नृप-+जयति 5. नराः+गच्छन्ति 6.हरेः+द्रव्यम्

7. कः+चित् 8. जनाः+तिष्ठन्ति

5.चतुर्णां समासनामनिर्देरशकपूर्वकं विग्रहवाक्यानि लिखत।4x1=4

अ.अधिहरि आ.प्रत्यहम् इ.महाबलः ई.सकृष्णः

उ.अतिहिमम् ऊ.समक्षण् ऋ. सुगात्री ॠ. उपदशाः

SPW Degree & PG College - Tirupati
Department of Sanskrit

Model Internal Question Paper Sem 11-2022-23 **2-03R20**

Time 1Hour Marks 25 Date 01-06-23

1.द्वौ श्लोकौ पूरयित्वा भाश्च लिखत। **2x3=6**

अ. सञ्चारिणी – भऊमिपालः।।

आ.कुलेन कान्त्या ----- काञ्चनेन।।

इ. शरीरेण ----------स हि कथ्यते।।

ई. भूषितो मुण्डिलो-----धर्मकारणम्।।

2. द्वयोः सम्पूर्णतया शब्दरूपाणि लिखत। **2x3=6**

अ. तनु आ.वनम् इ. मातृ ई. मधु

3. द्वयोः धातोःलकारे सर्वाणिरूपाणि लिखत। **2x21/2=5**

अ. इच्छति आ. क्रेष्यति इ. चोरयिष्यति ई.युध्यते

4. चतुण्रां नामनिर्देशकपूर्वकं सन्धत्त। **4x1=4**

1.तत्+लयः 2. तत्+अपि 3.कुर्वन् +एवउ

4. नृप-+जयति 5. नराः+गच्छन्ति 6.हरेः+द्रव्यम्

7. कः+चित् 8. जनाः+तिष्ठन्ति

5.चतुर्णां समासनामनिर्देरशकपूर्वकं विग्रहवाक्यानि लिखत।4x1=4

अ.अधिहरि आ.प्रत्यहम् इ.महाबलः ई.सकृष्णः

उ.अतिहिमम्ऊ.समक्षण् ऋ. सुगात्री ॠउपदशाः

****

SPW Degree & PG College - Tirupati
Department of Sanskrit

Model Internal Question Paper Sem 111 2022-23 3-03R20

Time 1Hour Marks 25 Date 01-02-23

1.द्वौ श्लोकौ पूरयित्वा भाश्च लिखत। 2x3=6

अ. आयुः सत्वबलारोग्य ---------- सात्विकप्रियाः।।

आ.कट्वाम्लल ---------- ------दुःखशोकमयप्रदाः।।

इ. देवद्विज---- –---------- तप उच्यते।।

ई. मनःप्रसाद ---------- मानसमुच्यत्।।

2. द्वयोः शब्दरूपाणि लिखत। 5x1=5

अ. जलमुत् -द्वितीया आ.वाच् -चतुर्थी इ. भगवत् – तृतीया ई. भवत् – पञ्चमी

उ.पचत् – सप्तमी ऊ. राजन् – षष्ठी ऋ. विद्वस् – प्रथमा ऋ. मनस् -पञ्चमी

3. द्वयोः धातोःलकारे सर्वाणिरूपाणि लिखत। 2x4 =8

अ. उपमा आ. अनन्वयः इ.उत्प्रेक्षा दीपकम्

4. द्वयोः लघुविवरणम् कुरुत 3x2=6

1.पाणिनिः 2. कौटिल्यः 3. भारविः 4. शंकराचार्यः

****

SPW Degree & PG College - Tirupati

Department of Sanskrit

Internal Question Paper Sem 111 2022-23 3-03R20

Time 1Hour Marks 25 Date 15-02-23

1.द्वौ श्लोकौ पूरयित्वा भाश्च लिखत। 2x3=6

अ. आयुः सत्वबलारोग्य --- सात्विकप्रियाः।।

आ.यातयामं ------तामसं प्रियम्।।

इ. देवद्विज –------- तप उच्यते।।

ई. दातव्यमिति ---------- स्मृतम्।।

2. द्वयोः शब्दरूपाणि लिखत। 5x1=5

अ. जलमुत् -द्वितीया आ.वाच् -चतुर्थी इ. भगवत् – तृतीया ई. भवत् – पञ्चमी

उ.पचत् – सप्तमी ऊ. राजन् – षष्ठी ऋ. विद्वस् – प्रथमा ऋ. मनस् -पञ्चमी

3. द्वयोः धातोःलकारे सर्वाणिरूपाणि लिखत। 2x4 =8

अ. अर्थान्तरन्सः आ. अनन्वयः इ.उत्प्रेक्षा ई. उपमा

4. द्वयोः लघुविवरणम् कुरुत 3x2=6

1 शंकराचार्यः. 2. कौटिल्यः 3. भारविः 4. दण्डिमहाकविः

****

SPW Degree & PG College - Tirupati
Department of Sanskrit

Model Internal Question Paper Sem 1 2022-23 1-03R20

Time 1Hour Marks 25 Date 01-02-23

1.द्वौ श्लोकौ पूरयित्वा भाश्च लिखत। 2x3=6

अ. सान्त्विता ----- मकण्ठकम् ।।

आ.अद्यार्य----------दिशोदश।।

इ. माता-गुरुतरा--- तृणात्।।

ई. सार्थः प्रववसतो ---- मरिष्यतः।।

2. द्वयोः सम्पूर्णतया शब्दरूपाणि लिखत। 2x3=6

अ. देव आ. कवि. इ. मति ई. रमा

3. द्वयोः धातोःलकारे सर्वाणिरूपाणि लिखत। 2x21/2=5

अ. अभवत् आ. पठति

इ. द्रक्ष्यति ई.लभते

4. चतुण्रां नामनिर्देशकपूर्वकं सन्धत्त। 4x1=4

1.राम+अनुजः 2.महा+अहिः 3.पौ+अकः4. वसन्तऋतुः

5परम+ऐश्वर्यम् 6. धृ+अंशः 7कवि+ च 8. षट्+मुखः

5.चतुर्णां समासनामनिर्देरशकपूर्वकं विग्रहवाक्यानि लिखत।4x1=4

1.. ग्रामगतः 2. अश्वपतितः 3. कृष्णसर्पः 4. पुरुषर्षभः

5.शीलधनम् 6.शीतोष्णम् 7. त्रिक्षुवनम् 8. भीमार्जुनः

****

SPW Degree & PG College - Tirupati
Department of Sanskrit

Internal Question Paper Sem 1 2022-23 1-03R20

Time 1Hour Marks 25 Date 15-02-23

1.द्वौ श्लोकौ पूरयित्वा भाश्च लिखत। 2x3=6

अ. मानं हित्वा ----------सुखी भवेत्।।

आ.सत्यमेवा-----प्रतिष्ठितः।।

इ. माता-गुरुतरा--- तृणात्।।

ई. सान्त्विता ----- मकण्ठकम् ।।

2. द्वयोः सम्पूर्णतया शब्दरूपाणि लिखत। 2x3=6

अ. देव आ. भानु इ. मति ई. रमा

3. द्वयोः धातोःलकारे सर्वाणिरूपाणि लिखत। 2x21/2=5

अ. भवतु आ. पठति इ. अपश्यत् ई.लभते

4. चतुण्रां नामनिर्देशकपूर्वकं सन्धत्त। 4x1=4

1.राम+अनुजः 2.महा+अहिः 3.पौ+अकः4. वसन्तऋतुः

5परम+ऐश्वर्यम् 6. धृ+अंशः 7कवि+ च 8. षट्+मुखः

5.चतुर्णां समासनामनिर्देरशकपूर्वकं विग्रहवाक्यानि लिखत।4x1=4

1.. ग्रामगतः 2. अश्वपतितः 3. कृष्णसर्पः 4. पुरुषर्षभः

5.शीलधनम् 6.शीतोष्णम् 7. त्रिक्षुवनम् 8. भीमार्जुनः

.....

SPW Degree & PG College - Tirupati
Department of Sanskrit

2022-2023

VISION And MISSION

1. VISION: And MISSION To Study and appreciate the Language of the land, the Deva Basha and develop a sense of attachment of the Sanathan Dharma.
   Mission 'To achieve the goals of teaching – learning processes that is Listening, Speaking Readng and Writing.

2. Faculty Profile -

S.No	Name of the Faculty Member	Qualifications	Experience In **SPW Degree & PG College**	Other
1	Dr Tatta PARTHA SARATHI	M.A PhD In SAHITYA U G C SLET In SANSKRIT. M.A PhD PURANETHIHASA SANSKRIT P.G Diploma in Temple Culture, P.G Diploma in Comparative Aesthetics On Global Perspective.	From Jan2020 to March 2020, Dec2022 Still Working as a Guest Faculty 1Year Three Months	VIGNAN DEGREE COLLEGE –GUNTUR From 1998 to 2012 RASHTRIYA SANSKRIT VIDYAPEETHA 2013to2019 S V Vedic University 2019to 2022 Total Teaching Experience 25years.

SRI VENKATESWARA UNIVERSITY: TIRUPATI2022-2023

B.A, B.Com, &B.Sc., etc Programmes

Revised Syllabus under CBCS Pattern w. e. f 2022-2023

Language Subjects – SANSKRIT

Revised Syllabus of SANSKRIT

SEMESTER	COURSE	TITLE	Hrs\Wk	Credits	Max Marks 1A SE	Total
1	1	POETRY, PROSE&GRAMMAR	04	03	25 75	100
11	11	POETRY, PROSE&GRAMMAR	04	03	25 75	100
111	111	POETRY, PROSE&GRAMMAR	04	03	25 75	100

Staff APPRAISAL Proforma

Evaluation of Head of the Department by the

Principal for the Year of 2022-2023 SPW Degree & PG College - Tirupati

Department of Sanskrit

Name : Mrs. K Nagapadma, Lecturer in English, i/c of Department of SANSKRIT

SUBJECT TAUGHT	Pass	Co – Curricular Activities	Recommendations of the Principal Academic Performance	Attendance& Discipline	
SANSKRIT	98%				

Principal

Staff Appraisal Proforma
Evaluation of Faculty by HOD for the Year 2022-2023

SPW Degree & PG College - Tirupati

Department of Sanskrit 8%

S.No	Name of the Lecturer	Subject Taught	Pass	Co-Curricular Activities	Recommendations of the HOD Academic Performance	Attendance& Discipline	Co – Curricular Activities
1	Dr. Tatta Partha Sarathi	SANSKRIT	98%	Student Seminar	Good	Good	Planning

SPW Degree & PG College - Tirupati

Department of Sanskrit

Endowment Prize –

Department of SANSKRIT2022-2023

Name of the Student	Marks Obtained	Group/ Course	Account No	*IFSC Code*	Mobile No	Address			
TMANAS	9.53	#rd BA	3241201001 3580	CANARA BANK	9502737086	D NO. 10-622 Kranthi Nagar –			

A		HEE		CNRB0013241 Akkarampalli Road Branch		Jeevakona, Satyanarayanapuram Tirupati			
AARpita	9.5	3rd B.Com CA	4156089602 4	Sate Bank of India SBIN0017801 C RAMAPURAM	871238 5199	D No 5-88, BALIJA PALLI, RAMACHANDRAPURAM Mandal Prasanna			

						Venkateswara puram			

SPW DEGREE & PG COLLEGE, TIRUPATI

DEPARTMENT OF POLITICAL SCIENCE (2022-23)

Name of the programme: B.A (E.M)

Name of the specific programme: H.E.P (E.M), H.E.P (E.M), E.P.S (E.M), E.P.P (E.M), H.T.P (E.M)

COURSE OUT COMES: on successful completion of the course, student will be able to.

PROGRAME OUTCOME:

PO1- Political Science and Society Understanding the inter relationship between policy decisions and its effects on society. This is achieved through a comprehensive teaching of the practice of public administration in India.

PO2- Critical thinking: The ability to analyse and predict socio political phenomena based on the study of existing socio economic determinants and past experiences.

PO3- Effective citizenship: Learn to participate in nation building by adhering to the principles of sovereignty of the nation, socialism, secularism, democracy and the values that guide a republic**.**

PO4- Communication: Communicate effectively through report, writing, documentation and effective presentation.

PO5- Individual and team work: Function effectively as an individual and as a member/leader in different social settings.

PO6- Interdisciplinary: Perceive knowledge as an organic, comprehensive, interrelated and integrated faculty of the human mind.

PO7- Ethics: Understanding the principles of ethics and responsibilities of a political graduate to serve the society.

PO8- Lifelong Learning: Engage in independent and lifelong learning in broadest contexts of science and technological development.

PO9- Future Employability: Enhance and adopt new skills for future employability in teaching and research through seminar, internship.

PO10- Competency: Successfully compete at national and international level competitive examinations.

POLITICAL SCIENCE DEPARTMENT

PROGRAMME SPECIFIC OUTCOME:

PSO1- Understanding the nature and developments in national and international politics

PSO2- Analysing the Indian constitutional provisions, major legislations and reforms.

PSO3- Critical evaluation of social, economic and political variables for a proper understanding of the plurality of Indian society

PSO4- Building overall consciousness regarding national political history, international relations and present Indian and Western political thinkers.

PSO5- Encouraging a comprehensive, comparative understanding of specific world constitutions such as UK, USA, China, Russia, Switzerland and France.

PSO6- Developing knowledge of administrative studies with special reference to Indian administrative structures and practices.

PSO7- Examining India's foreign relations with her neighbours and great powers.

PSO8- Use of case study method for analysing the working of important international and regional organisations like UN, EU, ASEAN etc.

Code	Title of the paper	Course Out comes
POL1 1-1-114	SEMESTER 1 PAPER-I INTRODUCTION TO POLITICAL SCIENCE	ON COMPLITION OF THE SYLLABUS STUDENTS WILL BE ABLE TO: CO1. Recall the previous knowledge about Political Science and understand the nature and scope, traditional and modern approaches of Political Science. CO2. Understand concepts intrinsic to the study of Political Science. CO3. Relate political science with other disciplines. CO4. Have solid theoretical understanding of Rights and its theories along with the basic aspects of certain political ideologies. CO5. Apply the knowledge to observe the field level phenomena. CO6. Analyze different concepts like freedom, equality, justice and rights.

Code	Title of the paper	Course Out comes
POL1 1-2-114	SEMESTER II, PAPER-II BASIC ORGANS OF THE GOVERNMENT	ON COMPLITION OF THE SYLLABUS STUDENTS WILL BE ABLE TO: CO1. Understand the Origin and Evolution of the concept of Constitutionalism and classification of Constitutions. CO2. Acquaint themselves with different theories of origin of State. CO3. Distinguish to understand the different types of democracy. CO4. Understand and analyses organs and forms of Governments along with a deep insight into the various agents involved in the political process. CO5. Apply the knowledge to analyse and evaluate the existing systems. CO6. Acquire political awareness in day to day life.

Code	Title of the paper	Course Out comes
POL1 1-3-114	SEMESTER III, PAPER-III INDIAN GOVERNMENT AND POLITICS	ON COMPLITION OF THE SYLLABUS STUDENTS WILL BE ABLE TO: CO1. Understand the institutional orientation with regard to the Indian government and politics. CO2. Acquire knowledge about the historical background of Constitutional development in India, appreciate features of the Indian Constitution. CO3. Analyze the relationship between State and individual interms of Fundamental Rights and Directive Principles of State Policy. CO4. Understand the composition of and functioning of Union Government as well as State Government and finally. CO5. Acquaint themselves with the judicial system of the country and its emerging trends such as judicial reforms.

Code	Title of the paper	Course Out comes
POL4 1-4-114	SEMESTER IV, PAPER-III INDIAN POLITICAL PROCESS	ON COMPLITION OF THE SYLLABUS STUDENTS WILL BE ABLE TO: CO1 Know and understand the federal system of the country and some of the vital contemporary emerging issues. CO2. Evaluate the electoral system of the country and to identify the areas of electoral reforms. CO3. Know the constitutional base and functioning of local governments with special emphasis on 73rd & 74th Constitutional Amendment Acts. CO4. Understand the dynamics of Indian Politics, Challenges faced and gain a sensitive comprehensive to the contributing factors. CO5. Apply the knowledge and critically comprehend the functioning of some of the regulatory and governance institutions. CO6. Propose theoretical outline alternate models.

Code	Title of the paper	Course Out comes
POL4 1-4-114	SEMESTER IV, PAPER-IV WESTERN POLITICAL THOUGHT	ON COMPLITION OF THE SYLLABUS STUDENTS WILL BE ABLE TO: CO1 Understand the fundamental contours classical, western political philosophy, basic features of medieval political thought and shift from medieval to modern era. CO2. Understand with the Liberal and Marxist philosophy and analyse some trends in Western Political thought. CO3. Acquaint with the Liberal and Marxist philosophy and analyse some trends in Western Political Thought. CO4. Critically analyse the evolution of Western Political Thought.

Code	Title of the paper	Course Out comes
POL5 1-5-114 R 6C	SEMESTER V, PAPER- V OFFICE MANAGEMENT	STUDENTS AT THE SUCCESSFUL COMPLETION OF THE COURSE WILL BE ABLE TO; CO1.Understand fundamental knowledge of Office Management that can be applied to a career. CO2. Have knowledge on office administration and identify job competencies. CO3. Understand the importance of record management and allied sections. CO4. Comprehend the administrative process in office CO5. Identify the challenges in the background of ICT. CO6. Enhance skills, strategies and techniques to compete with the global competencies in office

Code	Title of the paper	Course Out comes
POL5 1-5-114R – 7C	SEMESTER V, PAPER- V PERSONNEL ADMINISTRATION	STUDENTS AT THE SUCCESSFUL COMPLETION OF THE COURSE WILL BE ABLE TO; CO1. Understand Personnel Administration that can be applied to a career. CO2. Acquire knowledge on recruitment, selection and training and identify job competencies. CO3. Understand the importance and role of civil services in Indian Governance. CO4. Provide an overview on issues in administration. CO5. Enhance skills, strategies and techniques for Redressal of grievances in administration.

2022-23

S.P.W. Degree & P.G. College, TTD, Tirupati

CO'S & PSO'S of Department of Statistics

The Department of Statistics, S.P.W. Degree & P.G. College, TTD, Tirupati seeks to serve BSc/B.AProgramme students interested in careers related to Statistics. The department offers MSCs of BSc. Programme, MAS of BA, Programme, ASCA of BA Programme.In order to the Inculcate interests of students and employers, a total of 17 theory and 17 practical courses are combinely offered as part of Statistics domain in all the combination.

Programme Specific Outcomes of BSc/B.A Programme with Statistics

PSO 1: To inculcate the concepts and applications of Descriptive Statistics and probability, Mathematical Expectation and Probability distributions, Statistical methods, Statistical inference, Sampling Techniques and Design of Experiments, Quality and reliability, Applied Statistics, Operations research, Advanced Operations research, Numerical Analysis.

PSO 2: To inculcate the concepts and applications of Elementary Mathematics , Descriptive Statistics, Statistical methods, Statistical inference, , Statistical Applications-I ,Sampling Techniques, Analysis of Variance and Vital Statistics.

PSO 3: Be able to apply theoretical / statistical knowledge gained in various courses of BSc/ BA to solve numerical problems based on real life situations during practicals and draw meaningful solutions to day to day problems. Statistics has significant value and is used in areas from Government to all Business.

Direct method of computing PSO1 and PSO2 attainment is based on the student performance in all assessment instruments namely online and offline - subjective and objective tests for all the courses offered. These exams test students' learning at knowledge, understanding and application levels in the respective courses.

Level of attainment of course outcomes includes both direct and indirect assessments. Direct assessment is done by testing the knowledge and/or skills of the student in that course by conducting standardised examinations. In indirect assessment we use the student feedback on course which is

measured on 5 point scale. The sum of these two assessments is shown as the level of attainment of that course.

Assessment of all the theory courses is done in two parts, namely by formative assessment (25%) which is internal and summative assessment (75%) which is external**.**

Assessment of all the practical courses: Assessment is done in two parts, namely by continuous assessment (40%) and summative assessment (60%). In internal assessment, will be assessed for 40% by the practical application knowledge. Summative assessment (60%) of practical courses is through end semester practical exams designed to test student's knowledge as well as skills in the conduct of practicals. This direct assessment involves application of knowledge in solving / analyzing /exploring a real life situation / difficult problems and also testing students' knowledge. A written record of practical work carried out throughout the semester is also assessed.

Average percentage of level of attainments of all the courses in Statistics: 80%

Course outcomes of all the courses offered by Statistics department

Code	Title of the paper	Course Outcomes
1-1-122 R20	Descriptive Statistics and Probability	**Students will able to understand Knowledge on various types of data, their organization ,evaluation of summary measures such as measures of central tendency, dispersion etc.** **CO1:** Explain Primary and Secondary Data and graphical representation of data(Histogram, Frequency polygon etc) **CO2:** Explain Measures of Central Tendency. **CO3:** Explain Measures of Dispersion and Moments. **CO4:**. Explain various definitions of Probability. **CO5:**. Addition and Multiplication theorems on Probability.. **CO6:**. State and Prove Boole's inequality & Bayes theorem. **CO7:**. Definition of Random variables, Probability Mass function, Probability density function and Properties **CO8:** .M.G.F, C.G.f, P.G.F & C.F,Addition &Multiplication theorems on Mathematical expectations.

1-1-122P	Descriptive Statistics	**Students be able to apply theoretical / statistical knowledge gained in various courses of B.Sc to solve numerical problems based on real life situations during Practicals and draw meaningful solutions to day to day problems** **CO1:** Bar and Pie diagram Representation **CO2:** Graphical Representation of data **CO3:** Central and Non-Central Moments with Sheppard's corrections. **CO4:** Bowley's coefficient of skewness, calculate $\beta_1,\beta_2,\gamma_1,\gamma_2$. **CO5:** Calculate mean ,Median, Mode for the given data. **CO6:** Measures of dispersion.
1-2-122R20	Probability Distributions and Statistical Methods	**Students will able to understand** **CO1:**.Discrete distributions B.D, P.D,N.B.D,G.D **CO2:** Mean **,** variance ,M.g.f, c.f, p.g.f, c.g.f etc. **CO3:** Continuous distributions beta, gamma, rectangular , exponential distributions etc. **CO4: N**ormal distribution- properties. **CO5:** Derive recurrence relation for Moments of Binomial distribution. **CO6:** Prove that normal distribution as a Limiting case of Binomial distribution ,Poisson distribution. **CO7: Corre**lation , types of correlation ,rank correlation coefficient. **CO8: Bi**variate frequency distribution and problems. **CO9: Re**gression , two lines of regression and its properties. **CO10: C**urve fitting, principle of least suqares, fitting of straight line, parabola, exponential & power curves. **CO11**: Attributes definition, order of class frequency, consistency of data for two and three attributes.

1-2-122P	Probability Distributions and Statistical Methods	**Students be able to apply theoretical / analytical / statistical knowledge gained in various courses of B.Sc to solve numerical problems based on real life situations during Practicals and draw meaningful solutions to day to day problems** **CO1:** Fitting of a Binomial Distribution – Direct and Recurrence relation method **CO2:** Fitting of a Poisson Distribution – Direct and Recurrence relation method. **CO3:** Fitting of a Negative Binomial ,Geometric Distribution **CO4:** Fitting of a Normal , Exponential Distribution **CO5:** Fitting of a **straight line**, parabola, exponential, power curves. **CO6: C**orrelation coefficient, regression coefficient for grouped and ungrouped data, Yule's coefficient of association.
1-3-122 R20	Statistical Inference	**Students will able to apply ,examine, experiment conducting questions, compare and report writing.** **CO1:** Write the characteristics of good estimator. **CO2:** Define Population, sample, parameter, Statistic, Standard error, SamplingDistribution. **CO3:** Find MLE of a Parameter. **CO4:** State and prove Neyman-Pearson Lemma **CO5:** obtain BCR for testing Ho: $\mu = \mu_o$ against H1:$\mu = \mu_1$ for the normal Population. **CO6:** Statement of crammer Rao inequality. **CO7:** Large Sample tests for Mean, Proportion, S.D, Correlation etc **CO8:** obtain 95% confidence interval when σ is known as normal Population. **CO9:** Explain t test for difference of means, test for Variances, Chi-Square test for goodness of fit. **CO10:**Non-Parametric test's – Sign test, Run test, Median test.

1-3-122P	Statistical Inference	**Students be able to apply theoretical / analytical / statistical knowledge gained in various courses of B.Sc to solve numerical problems based on real life situations during Practicals and draw meaningful solutions to day to day problems** **CO1:** Large sample test for means. **CO2:** Large sample test for Proportions **CO3:** Large sample test for Standard deviations. **CO5:** Large sample test for correlation coefficient. **CO6:** To find the X^2 test for goodness of fit. **CO7:** Small sample test for means. **CO8:** Test for population variances **CO9**: Non Parametric test – Sign test **CO10**:.Run test and Median test.
1-4-122AR20	Sampling Techniques and design of experiments.	**Students will able to Construct Sample Surveys, Census survey, Examine, select different design of experiments and report writing.** **CO1:** Principle steps in sample survey, census survey **CO2:** Sampling and non-sampling errors, limitations of sampling. **CO3:** SRSWR, SRSWOR in simple random sampling **CO4:** Stratified random sampling, proportional and optimum allocation. **CO5:** Systematic random sampling **CO6:** Analysis of Variance – One way and Two way classifications and Design of Experiments **CO7:** CRD,RBD,LSD, Layouts **CO8:** Missing plot techniques of RBD,LSD.

1-4-122A(P)	Sampling Techniques and design of experiments.	**Students be able to apply theoretical / analytical / Statistical knowledge gaine in various courses of B.Sc to solve numerical problems based on real life situations during Practicals and draw meaningful solutions to day to day problems** **CO1:** Finding variance of SRSWOR **CO2:** Finding variance under stratified random sampling **CO3:** **CO4:** Stratified random sampling, proportional and optimum allocation. **CO5:** Systematic random sampling. **CO6:** Analysis of Variance – One way and Two way classifications . **CO7: Analysis of** CRD,RBD,LSD. **CO8:** Missing plot technique of RBD and LSD.
1-4-122BR20	APPLIED STATISTICS	**Students will able to undestand** **CO1:** Components of time series **CO2:** Measurements of trend, graphical, and moving averages, trend lines by parabola. **CO3:** Seasonal variations – simple averages, ratio moving averages and link relative method. Growth curves- detending effect of elimination of trend on other components of the time series. **CO4 :** Construction of Index numbers , simple and weighted index numbers, good index numbers – chain base and fixed base index numbers. **CO5:** Base shifting and splicing **CO6:** Construction of cost of living index numbers. **CO7:** Measurement of mortality and birth rates **CO8:** Explain the reproduction rates – GRR , NRR **CO9:** Construction and explain the uses of life tables and abridged life tables.

1-4-122B(P)	APPLIED STATISTICS	**Students be able to apply theoretical / analytical / Statistical knowledge gained in various courses of B.Sc to solve numerical problems based on real life situations during Practicals and draw meaningful solutions to day to day problems** **CO1:** Calculation of trend values by moving averages method **CO2:** Calculation of trend values by linear trend method **CO3:** Calculation of seasonal indices by simple average method **CO4:** Calculation of seasonal indices by Ratio to trend method **CO5:** Calculation of seasonal indices by Ratio to moving average method. **CO6:** Calculation of seasonal indices by Link Relative method **CO7:** Calculation of Simple and weighted index numbers. **CO8**: Construction of cost of living index numbers**.**
1-5-122A	Operations Research- I	**Students will able to understand, develop, formulate LPP. Solve LPP , examine and interpret data.** **CO1:** Explain the scope of OR **CO2:** Explain Nature and features, modeling, phases, Applications and limitations of OR. **CO3: LPP,** mathematical formulation of LPP. Find an initial basic feasible solution (IBFS), Slack and Surplus Variables. **CO4:** Find the optimal solution using graphical method, Simplex method, Big-M method,Two-Phase simplex method. **CO6:** Solve the transportation Problem by using NWCR, MMM, VAM methods. **CO7:** Balanced and unbalanced Assignment Problem by using Hungarian method **CO8:** Types of simulation ,random variables, random numbers, Monte-Carlo technique and problems.

1-5-122A(P)	Operations Research- I	**Students be able to apply theoretical / analytical / statistical knowledge gained in various courses of B.Sc to solve numerical problems based on real life situations during Practicals and draw meaningful solutions to day to day problems** **CO1 :** Formulation of LPP **CO2 :** Solving LPP by graphical method **CO3:** Solving LPP by simplex method CO4: Solving LPP by Big –M method **CO5:** Solving LPP by Two phase simplex method **CO6**:Monte –Carlo technique of simulation.
1-5-122B	Operations Research- II	**Students will able to understand, develop, formulate Sequencing ,Game theory , Queuing system and Network Problems.** **CO1:** Principles and assumptions of sequencing algorithm (Johnson algorithm) processing n jobs for two, three and k-machines. **CO2: Pay** off matrix, saddle point , graphical method for 2xn or mx2 games, maxmin, minimax principle, dominance property to reduce the game matrix and solutions. **CO3: Q**ueuing system, arrival pattern service mechanism q-discipline ,customer behavior, study state property ,candall's rotation , classification of queuing model, problems in model-1 (m/m/1; with finite and infinite) **CO4:N**et work- rules of network construction, algorithm and problems on CPM and PERT. Solve the transportation Problem by using NWCR, MMM, VAM methods. **CO5:** Balanced and unbalanced Assignment Problem by using Hungarian method

1-5-122B(P)	Operations Research- II	**Students will able to understand, develop, formulate Sequencing ,Game theory , Queuing system and Network Problems.** **CO1:** Solve the transportation Problem by using NWCR, MMM, VAM methods. **CO2:** Balanced and unbalanced Assignment Problem by using Hungarian method **CO3: Pay** off matrix, saddle point , graphical method for 2xn or mx2 games, maxmin, minimax principle, dominance property to reduce the game matrix and solutions. **CO4: Q**ueuing system, arrival pattern service mechanism q-discipline ,customer behavior, study state property ,candall's rotation , classification of queuing model, problems in model-1 (m/m/1; with finite and infinite) **CO5:N**et work- rules of network construction, algorithm and problems on CPM and PERT.
1-6-122A	Operation research -I	**Students will able to understand, develop, formulate LPP. Solve LPP , examine and interpret data.** **CO1:** Explain the scope of OR **CO2:** Explain Nature and features, modeling, phases, Applications and limitations of OR. **CO3: LPP,** mathematical formulation of LPP. Find an initial basic feasible solution (IBFS), Slack and Surplus Variables. **CO4:** Find the optimal solution using graphical method, Simplex method, Big-M method,Two-Phase simplex method. **CO6:** Solve the transportation Problem by using NWCR, MMM, VAM methods. **CO7:** Balanced and unbalanced Assignment Problem by using Hungarian method
1-6-122A(P)	Operation research -I	**CO6:** Solving Transportation problem by NWC rule to find IBFS **CO7**: Solving Transportation problem by least cost method to find IBFS **CO8:** Solving Transportation problem by VAM method to find IBFS **CO9:** Assignment problem by Hungarian method **CO10:** Unbalanced assignment problem **CO11:** Travelling –Salesman problem. **CO1:** n-jobs for two machines **CO2:** n-jobs for three machines CO3: n-jobs for k- machines CO4:Graphicalmeyhod for 2xn CO5: Graphicalmeyhod for mx2

		CO6:Principle of Dominance. Find the value of Game matrix CO7: Find CPM CO8: Find PERT
1-6-122B	Operations Research-II	**Students will able to understand, develop, formulate Sequencing ,Game theory , Queuing system and Network Problems.** **CO1:** Principles and assumptions of sequencing algorithm (Johnson algorithm) processing n jobs for two, three and k-machines. **CO2: Pay** off matrix, saddle point , graphical method for 2xn or mx2 games, maxmin, minimax principle, dominance property to reduce the game matrix and solutions. **CO3: Q**ueuing system, arrival pattern service mechanism q-discipline ,customer behavior, study state property ,candall's rotation , classification of queuing model, problems in model-1 (m/m/1; with finite and infinite) **CO4:N**et work- rules of network construction, algorithm and problems on CPM and PERT.
1-6-122B(p)	Operations Research-II	**Students be able to apply theoretical / analytical / statistical knowledge gained in various courses of B.Sc to solve numerical problems based on real life situations during Practicals and draw meaningful solutions to day to day problems** **CO1:** n-jobs for two machines **CO2:** n-jobs for three machines CO3: n-jobs for k- machines CO4:Graphicalmeyhod for 2xn CO5: Graphicalmeyhod for mx2 CO6:Principle of Dominance. Find the value of Game matrix CO7: Find CPM CO8: Find PERT

1-1-121	Elementary Mathematics(NM)	**Students Will be able to build the basis for promoting theoretical and applications aspects, know the idea about mathematical techniques which are necessary to analyze the statistical techniques.** CO1: To know the concept of matrices and its operations. CO2: To find the adjoint and determinant of a square matrix and its inverse. CO3: To solve the simultaneous equations using matrix method. CO4: Able to know the concepts of set theory and operations in sets. CO5: Understand the concept of finite differences.
1-1-121(P)	Elementary Mathematics	**Students be able to apply theoretical / analytical / statistical knowledge gained in various courses of B.A during Practicals and draw meaningful solutions to day to day problems.** **CO1:** To calculate addition ,substraction of Matrices **CO2:** To compute Multiplication of Matrices,Adjoint,Inverse,Rank of Matrix. **CO3:** To solve linear equations. **CO4:** Operations on sets- Union, Intersection on sets. **CO5:** Newton's forward and backward interpolation formula.
1-2-121	Descriptive Statistics	**Students will be able to understand knowledge of statistics,its scope and importance in various areas such as Medical,Engineering , Agricultural and Social sciences etc.** **CO1:** Primary and secondary data, statistical enquiry ,questionnaire and schedule. **CO2:** Classification and tabulation of data, single,doubleand manifold tables. **CO3:** Knowledge on various types of data, their evaluation of summary measures such as measures of central tendency, dispersion etc. **CO4:** Knowledge of various types of data in diagrammatic representation.

1-2-121(P)	Descriptive Statistics	**Students be able to apply theoretical / analytical / statistical knowledge gained in various courses of B.A during Practicals and draw meaningful solutions to day to day problems.** **CO1: Diagrammatic** Representation- Bar,pie charts, **CO2: Graphical Representation – Hi**stogram, frequency polygon,ogives. **CO3: Measures of central tendency –**Mean,Median,Mode **CO4: Measures of Dispersion** – Range, Q.D, M.D, S.D, Coefficient of Variation.

SPW DEGREE AND PG COLLEGE , TIRUPATHI

DEPARTMENT OF ECONOMICS, 2022-2023

PROGRAME OUTCOMES – B.A ECONOMICS

PO .1 : Critical thinking : Take informed actions after identifying the assumptions that frame our thinking and actions , Checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual , organizational and personal) from different perspectives.

PO .2: Effective communication : Speak , read , write and listen clearly in person and through electronic media in English and in one Indian language and make meaning of the world by connecting people , ideas , books , media and technology.

PO. 3 : Social interaction : Elicit views of others , mediate disagreements and help reach conclusions in group settings.

PO. 4 : Effective citizenship : Demonstrate empathetic social concern and equity centered national development , the ability to act with an informed awareness of issues and participate in civic life through volunteering .

PO.5: Ethics : Recognize different value systems including your own , understand the moral dimensions of your decisions , and accept responsibility for them.

PO.6 : Environment and sustainability : Understand the issues of environmental contexts and sustainable development.

PO.7: Self-Directed and lifelong learning : Acquire the ability to engage in independent and lifelong-learning in the broadest context socio-technological changes.

Programme specific outcomes of B.A Economics

PSO 1: Understand the basic concepts of economics at micro and macro level analysis.

PSO2 : Students acquired knowledge about many economic issues like unemployment , poverty , economic and regional imbalances in India as a whole and specially in AP Economy.

PSO3 : Applied mathematical and statistical tools to examine the economic analysis in different .. fields.

PSO 4 : Gained awareness with government programme adapted both at internal as well as international level to influence economic development of India.

Course outcomes of B.A. Economics

Semester 1 : Paper -I : Microeconomic Analysis - : Code : 1-1-107R20

CO1 : Analyze above Triditional and Modern Definition of economics.

CO2 : Understand above Methodology in Economics .

CO 3: Perform Supply and demand analysis to analyze the impact of economic events on .. Markets.

CO4 : Analyze the behaviour of consumers in terms of the demand for products.

CO 5: Analyse the performance of firms under different market structures.

CO6 : Recoginize market failure and the role of Government in dealing with those failures.

CO7 : Explain how input markets work.

CO8 : Evaluate the factors affecting firm behaviour,such as production and costs.

CO9 : To have a better awareness regarding different factor pricing - rent wages, interest and profit.

CO10 : Use economic Analysis to evaluate controversial issues and policies.

SEMESTER 2 -PAPER II -Macroeconomic Analysis -Code- 1-2-107R20

CO1 : Compute different measures of macro Economic activity such as the national income accounts, inflaytion , and unemployment, and evaluate the short comings of traditional economic measures.

CO2 : Analyze the forces that affect the aggregate level of economic activity and the business cycle using AD - AS Analysis.

CO3 :Recognize how monetary and fiscal policy can be use to achieve policy goats..

CO4 : Evaluate the determinants of international trade and financial flows and.

CO5 : Identify the social consequences of national and international economic activity.

Semester 3-Paper III - Development Economics Code -1-3-107 R20

CO1 :Remembers and states in a systematic way various concepts, definitions and indicators relating to Economic growth and development including recent developments

CO2: Explains distinction between growth and development with examples.

CO3 :Explain characteristics of developed and developing economies and distinction between the two.

CO4 : Explain the factors contributing to development, choice of techniques and a few important models and strategies of growth.

CO5: Critically examines using data and figures the theoretical aspects of a few models and Starategies of economic growth.

CO6 :Critically examines role and importance of various financial and other institution in the context of India's economic development.

CO7 :Draws critical diagrams and graphs to explain the models and strategies.

CO8 : Draws diagrams and graphs to highlight empirical evidences to support the strategies.

Semester 4 -Paper IV -Economic Development- India and Andhra Pradesh Code -1-4-107A -R20.

CO1 : Remembers and states in a systematic way the leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses.

CO2 : Remembers and states the objectives, outlays and achievements of economic plans and growth strategies.

CO3: Explains available resources, demographic issues, general problems of poverty and unemployment and relevant policies.

CO4 :Explains 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.

CO5 : Explains Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds.

CO6: Explains major issues of economic development of Andhra Pradesh after bifurcation and central assistance.

CO7 : Critically examines the leading issues of current importance relating to India and AP Economy,major policies and programmes.

CO8 : critically examines covid-19 and its impact on Indian economy.

CO9 : Uses official statistical data to explain the achievements of Indian economy with reference to the objectives of planninig and policy and make critical evaluation.

Semester 4 -Paper V -Statistical Methods for Economics Code -1-4-107B -R20.

CO 1 : Remembers and states the definitions, terns and their meaning relating to statistical methods.

CO 2: Remembers various formulae used to measure central tendency, correlation, regression and indices.

CO 3: Explains importances of statistics and its applications.

CO 4: Explains the method of classification of primary data.

CO 5: Understand the uses of correlation and regression analyses ,time series and index numbers in economic analysis.

CO 6: analyses and solves the different kinds of statistical problems using various principles and formulae relating to central tendency, correlation, regression, time series and indices.

CO 7: Analyses to interpret data and suggest solutions to economic problems.

CO 8: draws critical diagrams and graphs histogram, frequency polygon, bardiagrams, give curves, pie diagram and its uses in economic analysis.

Semester 5-Paper V -Insurance Services -Code -1-5-107 - 6C

CO 1 : Explain the concept and principles of insurance service and functioning of insurance service agencies.

CO 2: Identify and analyse the opportunities related insurance services in local rural area.

CO 3: Apply the concepts and principles of insurance to build a career in insurance services.

CO 4: Demonstrate practical skills to enable them to start insurance service agency or earn wage employment in it.

Semester-5-Paper VI -Banking and Financial services -Code -1-5-107-7C.

CO 1 :Explain the concept and essential banking and financial services.

CO2 :Identify and analyse the employement opportunities related to banks and other financial institutions.

CO3 :Apply the concepts to banking and financial opportunities and formulate ideas related to them.

CO4 : Demonstrate pratical skills to enable them to get employement in banks and other financial institutions as business correspondents are common service centers or marketing agents.

Semester -6 - Long term Internship.

SPW Degree &PG College

CAREER OUTCOMES OF ENVIRONMENTAL STUDIES

2022-2023

An environment study is all about learning the way we should live and how we can develop sustainable strategies to protect the environment. It helps individuals to develop and understanding of living and physical environment and how to resolve challenging environmental issues affecting nature.

Environmental Science is the best career option for you. You can study the physical, chemical and biological processes that take place on the Earth, as well as the social, political and cultural methods which impact the planet. After holding a degree in this field, you will get a vast career option to choose.

Appreciate concepts and methods from ecological and physical sciences and their application in environmental problem solving. Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.

7 Highest Paying Green Careers in Environmental Studies:

1. Environmental Engineer: Environmental Engineers improve public health by overseeing waste and pollution control policies.
2. Conservation Scientist
3. Urban Planner
4. Environmental Lawyer
5. Zoologists
6. Hydrologist
7. Marine Biologist

However, those applying for an undergraduate (bachelor s) degree in environmental science can except to be asked for a diploma of secondary education, including good grades in at least one of the following related

subjects: Biology, Chemistry, Economics, Geography, Geology, Mathematics of Physics.

SPW Degree & Pg College, Tirupati
Department of English

Program Outcome for General English for UG

Students will be able to:

PO 1**: *** Critically and analytically read works of literature produced in many different cultures and historical periods
PO 2: * Employ a variety of methods to respond to, evaluate, analyze and understand literary and non literary texts
PO 3: * Examine various literary techniques that writers use in constructing their texts and demonstrate an understanding of these techniques
PO 4: * Demonstrate, through discussion and writing, the understanding of significant cultural and societal issues presented in literature.
PO 5: * Apply critical and technical vocabulary to describe, analyze and formulate an argument about literary and other texts
PO 6: * Write clearly and effectively in a variety of forms, adopting writing and analytical skills to all situations
PO 7: * Identify and evaluate appropriate research sources and incorporating the sources into documented academic writing and formulate original arguments in response to those sources
PO 8: * Recognize and write in accordance with a standardized system for formatting research papers and citing resources.
PO 9: * Adopt literary, critical and oral skills to communicate effectively in business and graduate school environments
PO 10: * Appreciate literature as a source of practical wisdom, aesthetic pleasure and knowledge of the diversity of human experience

Course Outcome of General English

Semester – I

Students will be able to:

- Use grammar effectively in writing and Speaking.
- Demonstrate the use of good vocabulary.
- Demonstrate an understanding of writing skills.
- Acquire ability to use Soft Skills in professional and daily life.
- Confidently use the tools of communication skills.

Course Outcome of General English

Semester – II

Students will be able to:

- Use reading skills effectively.
- Comprehend different text.
- Interpret different types of text.
- Analyze what is being read.
- Build up a repository of active vocabulary.
- Use good writing Strategies.
- Write well for any Purpose.
- Improve writing skills independently for future needs.

Course Outcome of General English

Semester – III

Students will be able to:

- Speak fluently in English.
- Participate confidently in any social interaction.
- Face any Professional discourse.
- Demonstrate critical thinking.
- Enhance conversational skills by observing the professional interviews.

_____

S.P.W. D & P.G COLLEGE,TIRUPATI

DEPARTMENT OF GEOGRAPHY

2022-2023

Programme outcomes

BA Geography programme has been designed with an aim that the students should acquire complete knowledge in Geography both in theoretical and practical aspects. In addition students also understand the advanced concepts in physical Geography, Human Geography, Economic Geography, Political geography, Geographical Information Systems and Remote Sensing.

After completion of the BA Geography programme the students will attain professional and scientific knowledge, and become competent to pursue higher studies leading to B.Ed, Post Graduation and Geo informatics to secure a suitable job in Teaching and Administration fields like IAS,IPS,IFS etc..

The Student will be able to:

PO1: Apply the wide range of knowledge in the discipline of Geography to join/work in interdisciplinary and multidisciplinary areas of Geography.

PO2: develop written and oral communication skills in Geography related topics.

PO3: Develop the proficiency in the acquisition of Geographical data using a variety of laboratory instruments and in the analysis and interpretation of such data.

PO4: Apply conceptual understanding of the Geography to general real-world situations.

PO5: Discover of Geography concepts in other disciplines such as mathematics, Geographical information systems, Population Studies, Environmental Studies, Economics etc..

PO6: work with a sense of responsibility towards social awareness and follow the ethical standards in the society.

PO7: Ability to demonstrate and discuss ethical conduct in scientific activities.

PO8: Describe the need for lifelong learning in ever changing Geographical aspects from native to global

PO9: create an awareness of the impact of Geography on the environment, Society and Agriculture.

PO10: Develop socially and ethically responsible Geographer.

PO11: Acquire the ability to use different Geographical tools ,materials and ;latest Hardware and Software equipments

Programme specific outcomes:

PSO1: Apply, clarify and acquire fundamental knowledge in the discipline of Geography such as Physical Geography, Human Geography, Economic Geography, Political geography, Geographical Information Systems and Remote Sensing and their related experiments.

PSO2: Gain practical knowledge to perform cartographic techniques on mapping and Geospatial, qualitative and quantitative data analysis and presentation.

PSO3: Will be able to integrate knowledge gained in Geography to general education and also know the relationship between different papers of the subject.

PSO4: To apply the gained knowledge of Geography in industry, Agriculture, Economic Geography in sustainable development of environment.

PSO5: Understand the interpretation of India Toposheet, weather map, satellite imageries and aerial photos.

PSO6: Learn about survey ,its types and procedure

PSO7: Exhibit students knowledge in ever changing Geographical situations and the surrounding environment by using Geospatial techniques.

Course outcomes

Geography subject has 11 theory and 11 practical's

Semester-I

Paper:1-1-109-R20 :Physical Geography-.

After completion of the course the student will be able:

CO1. To define the Definition Nature and scope of Physical Geography.
understand the process of the Earth Movements: Volcanoes and Earth quakes,
Wegner's Continental Drift and Plate tectonics.

CO2. To compare and discus the Weathering and mass movements- causes, types and impacts constructing models of cycle of erosion of W.M. Davis and Penck.
landform processes of River, Glacier , Under Ground Water, Wind and Sea Waves.

CO3. To define the terms Weather and Climate. To Know and remember structure and composition of Atmosphere. horizontal and vertical distribution of temperature.
To describe the Atmospheric pressure- measurements and distribution ; wind Types: Planetary ,monsoon and local winds.

CO4. To evaluate the Humidity - precipitation Forms , types and distribution. Koppen Climate classification, climatic change and global warming

CO5. To Know and formulate the Oceanic floors, temperature and Salinity. Land and water Distribution. To Examine the Sea water Movements: Tides and waves. To design ocean currents and oceanic resources.

Paper:1-1-109-R20 P: practical- Study of Weather and Climate.

After completion of the course the student will be able

CO1.to acquire practical knowledge on Weather and Climate.

CO2. describe the instruments to study weather.

CO3. apply weather symbols based on Indian daily Weather Map.

CO4 interpretation of weather reports and Weather forecasting.

CO5. Maintain Laboratory Records

Semester-II

Paper:1-2-109-R20: Human Geography

After completion of the course the student will be able:
CO1. To define the Nature ,scope and purpose of Human Geography. To Know and remember division of Mankind: spatial distribution of Human race and Man and Environment relation .
CO2. To describe the Human adaptation to the environment.1.cold region-Eskimos 2.Hot region-Bushman.3.Platetu-Gonds4.Mountains-Gujjars.
CO3. To Understand meaning, definition, classification of resources, Conservation of resources and Management.
CO4. To analyse the world population density, population growth and distribution. Malthus Population theorie
CO5. To explain the definition, Types, classification of Rural and urban settlements .
CO6. To examine the origin and evolution of settlements: Rural and Urban. To demonstrate skill in designing and constructing models of settlements.

Paper:1-2-109-R20 P: practical- Maps and Scales.
After completion of the course the student will be able
CO1.to acquire practical knowledge on different types of Scales and maps.
CO2 . Understand the importance of Scales and their drawing.
CO3 .Develop Construction and conversion of Scales.
CO4 .Laboratory Records have maintained.

Semester-III

Paper:1-5-120:Economic Geography.

CO1. Define the Nature ,concept and classification of economic activity.
CO2. Describe the Agriculture theory of vonthunen and Weber Industrial location theory
CO3. Execute the knowledge on Primary Activities: Subsistence and Commercial agriculture; forestry and mining.
CO4. Differentiate Manufacturing industries, Concept of Manufacturing Regions, Special Economic Zones and Technology Parks.
CO5. Create awareness on Teritary Activities such as Transport, Trade and Services.

Paper:1-4-109P : practical-Map projections.

After completion of the course student will ability to:
Acquire practical knowledge of projections, their types and drawn the projections.
Laboratory Records have maintained.

Semester-IV

Paper:IV:Geography of India

After completion of the course the student will be able:

CO1.Know and remember the different relief structures, drainage systems, soils, natural vegetation and Climatic aspects of India.
CO2. Understand the Population: distribution ,density, growth and migration.
CO3. Describe the Human settlements and Urbanisation.'
CO3. Apply the knowledge of land resources: Irrigation, regional variations in cropping pattern, green revolution and problems of Indian agriculture
CO4. Analyse Mineral and Energy Resources and their distribution in India.
CO5. Appraise the Industries and Industrial regions of India.
CO6. Develop Modes of Transport and communication, International Trade, changing pattern of Exports and Imports.

Paper: IVP : practical-Thematic Mapping

After completion of the course student will ability to:
Acquire practical knowledge of Thematic Maps, drawn the Diagrams and Topographical Maps.
Laboratory Records have maintained.

Paper:V:Introduction to Remote Sensing and Geographical Information System

After completion of the course the student will be able:

CO1. Recollect the Definition , History, development and stages of Remote Sensing. Understand the Types of Remote Sensing and Energy sources.
CO2. Gain knowledge about Aerial Remote Sensing: Definition , History, and types and development, Geometry and Photo Interpretation Using Stereoscopy
CO3. To Understand the Data input methods: Keyboard, Scanners, GPS data, Aerial photographs and satellite images; Database generation: sources of spatial and Non-spatial data.
CO4. To Evaluate Data analysis: spatial Measurement Methods, Buffering and overlay and create Data Models: DTM and TIN.
CO5.To develop GIS Applications such as land information system, Disaster management and urban management

Paper:V : practical Remote Sensing and GIS

After completion of the course student will be able to
CO1 acquire practical knowledge on Remote Sensing instruments: Pocket Stereo scope and mirror stereoscope.
CO2.Skill to Interpret Physical and cultural features of a given Aerial Photograph.
acquire Computer knowledge on Hardware and software.
CO3. demonstrate GIS Capabilities and skill in making the Geo referencing.
CO4.construct digitization of point, line and polygon features

Semister-V

Paper: 6B Environmental Geography

After completion of the course student will be able to:

CO1. Define Environmental Geography -Introduction, definition, concept and scope.
CO2. Describe the environmental components and Bio Diversity.
CO3. Describe the Ecosystem: Concept, structure and functions.
CO4. To Understand the Human-Environmental Geographic regions in India. Environmental problems.
CO5. Create awareness on Environmental pollution.Evironmental Relationships.
To analyse Rural Environmental Issues, Urban environmental issues.
CO6. Describe the Human population and the environment, Environmental programs and policies in India **.**

Paper: 6B P: practical –Field Work Study of Environment

After completion of the course student will be able to
CO1 .Analyse Physical and cultural Environment. Study of plats and Dry lands
CO2.To evaluate Rural snd Urban area Ecosystem.

Paper: 7B Disaster Management

CO1. Define Disaster Management -Introduction, definition, concept and scope.
CO2. Define Hazards -Introduction, definition, concept and scope.
CO3. Describe the Classification of Disaster .
CO4. To Understand the causes and impacts of Floods and Droughts.
CO5. Create awareness on Fire,Nuclear Disaster,Accidents,War & Terrorism .
CO6. Describe the Types of pollution, Role of Geo informatics in Disaster Management.

Paper : 7B-practical:Surveying,
After completion of the course student will be able
CO1. To recall Surveying Instruments.
CO2. To understand the Meaning, types and procedure of surveying practically.
CO3. To apply Chain Survey and Plain Table Survey.
CO4. To compare Chain Survey and Plain Table Survey.
CO5. To develop Chain Survey and Plain Table Survey.

Semister-VI

Long Term Intern ship

1-5-120:Economic Geography.

CO1. Define the Nature ,concept and classification of economic activity.
CO2. Describe the Agriculture theory of vonthunen and Weber Industrial location theory
CO3. Execute the knowledge on Primary Activities: Subsistence and Commercial agriculture; forestry and mining.
CO4. Differentiate Manufacturing industries, Concept of Manufacturing Regions, Special Economic Zones and Technology Parks.
CO5. Create awareness on Teritary Activities such as Transport, Trade and Services.

Paper:1-5-120 P: practical- Research project on regional devolopement.

After completion of the course student will Ability to:
CO1. Gain practical knowledge on survey, define and identification of a Research problem.
CO2. Selection of Scope and Objectives.
CO3. Derive Tools and analysis
CO4. Evaluate Compilation and computation
CO5. Design Presentations and Report writing on Field Survey Case Studies

Semister-VI

Paper:1-6-109:Geographical information system(G.I.S).

After completion of the course student will be able :
CO1. To recollect Definition, history and development of GIS; Hardware requirements and GIS Softwares.

CO2. To Understand the Data input methods: Keyboard, Scanners, GPS data, Aerial photographs and satellite images; Database generation: sources of spatial and Non-spatial data.
CO3. To apply the Meta data, Database and Data Base management System(DBMS).
CO4. To Justify the Raster data and Vector data structures.
CO5. To Evaluate Data analysis: spatial Measurement Methods, Buffering and overlay and create Data Models: DTM and TIN.
CO6.To develop GIS Applications such as land information system, Disaster management , and urban management.

Paper:1-6-109P-practical:Geographical informational system(G.I.S).
After completion of the course student will

CO1.acquire Computer knowledge on Hardware and software.
CO2. demonstrate GIS Capabilities and skill in making the Geo referencing.
CO3.construct digitization of point, line and polygon features.

Paper:1-6-109A:Regional Geography of Andhra Pradesh.

After completion of the course the student will be able to:

CO1. Know and remember the location, Physiographic divisions, soils, climate regions, natural vegetation and drainage of Andhra Pradesh.
CO2. Understand the Population and Agriculture of Andhra Pradesh.
CO3. Apply the knowledge of irrigation and its types; Major and Minor Dams .
CO4. Demonstrate skill in drawing the Administrative Divisions and of Andhra Pradesh.

CO5. Analyse Transport and its ways.
CO6. Appraise Mineral resources and Industries.
CO7. Design State Economic Zones of Andhra Pradesh.

Paper :–1-6-109A P: practical- Mapping qualitative data.
After completion of the course student will acquire practical knowledge and able :

CO1. To apply Population Distribution of Andhra Pradesh using Dot Method .
CO2. To analyse Population Distribution of Andhra Pradesh with choropleth mapping method.
CO3. To evaluate Crop production of Andhra Pradesh using isopleth method.
CO4. To develop crop combination with weavers deviation method.

Paper :1-6-109B: Political Geography.
After completion of the course student will learn
CO1. To remember Nature, Scope, Content and Evolution of Political Geography; and to relate Political Geography with other branches of Social Sciences .

CO2. To understand the Classical Phase , Modern Phase and Postmodern Phase .

CO3. To apply Colonial Structure of India, Bases of Reorganization of Indian States since Independence.
CO4. To distinguish Local Self-Governance and Federalism. To examine the center - state relations and gain insight in to the basic structure of Indian constitution.
CO5. To justify the inter-state disputes, Socio-Political and Regional Aspirations and Movements in India, formation of New States .
CO6. To evaluate Electoral Geography and Election System in India.
CO7. To develop social and political theories and concepts through popular texts: Mahabharata (Vyas Deva), Arthashastra (Kautilya) etc.

Paper :-1-6-109B-practical:Project work on Government policies.
After completion of the course student will acquire knowledge on different Government policies like education, reservation , agriculture and industries.

Paper :1-6-109C: Geographical Thought.

After completion of the course student will be able :

CO1. To recall the Nature and Evolution of Geographical Thought in the Ancient, Medieval and Modern Period and describe the Phoenicians and their contribution.

CO2. To discuss the Contribution of Arab Geographers- Khusro Anusherwan, Al-Masudi and Al-Jaruni.

CO3. To execute the Contribution of Greeks Geographers- Eratosthenes and Strabo.

CO4. To examine the Contributions of Indian Geographers-. TH .Holdich, HL.Chibber, A.N.Kapur, A.M.Alam and S.P. Chattergy.

CO5. Evaluate the establishment of Universities and Geographical Societies.

CO6. To assemble the Contribution of Roman and German Geographers-Julius Caesar, Alfred Hetner and Emmanuel Kant.

Paper :1-6-109C-practical:Surveying,

After completion of the course student will be able

CO1. To recall Surveying Instruments.

CO2. To understand the Meaning, types and procedure of surveying practically.

CO3. To apply Chain Survey and Plain Table Survey.

CO4. To compare Chain Survey and Plain Table Survey.

CO5. To develop Chain Survey and Plain Table Survey.

S.P.W.DEGREE & PG COLLEGE, TIRUPATI

PROGRAMME OUTCOMES: HINDI (SECOND LANGUAGE)

PO 1: छात्रों को हिंदी भाषा के उद्भव, विकास तथा विभिन्न रूपों एवं बोलियों का ज्ञान प्राप्त हुआ I

PO 2 : छात्रों में हिंदी साहित्य के इतिहास के विकासक्रम और लेखन परंपरा के सम्बन्ध में यथोचित दृष्टिकोण विकसित हुआ

PO 3: छात्रों में हिंदी गध्य और पद्य के विभिन्न साहित्यिक विधाओं के माध्यम से भावात्मक विकास हुआ

PO 4: छात्रों में हिंदी साहित्य के माध्यम से नैतिक मूल्य, राष्ट्रीय एकता तथा सामाजिक मूल्यों के प्रति आस्था निर्माण हुई

PO 5: छात्रों में सरकारी कार्यालयों में प्रयुक्त कार्यालयीन हिंदी भाषा का परिचय प्राप्त हुआ

PO 6: छात्रों को हिंदी व्याकरण से सम्बंधित ज्ञान का विकास हुआ

PO 7: छात्रों को पत्र लेखन सम्बंधित, अनुवाद सम्बंधित सभी विषयों का ज्ञान प्राप्त हुआ

PO 8: हिंदी बुनियादी में विशेषज्ञता हिंदी भाषा में ज्ञान और साहित्य और प्रदान करने के लिए दूसरे विषय में प्रवीणता दूसरी भाषा में छात्र हिंदी जैसे B.A, B.Com और B.Sc. जाने के अवसरों के साथ उच्च शिक्षा और रोजगार के अवसर अनुसंधान।

PO 9: ज्ञान प्रदान करने के लिए राष्ट्रीय भाषा हिंदी में कला और साहित्य के क्षेत्र। जन संचार, पत्रकारिता, साहित्यिक अनुसंधान और आलोचना करना भी सिखाया जाता है छात्रों को रोजगार योग्य बनाना।

PO 10: रोजगार सृजन में सूचना प्रौद्योगिकी की भूमिका को समझने में सक्षम होना

HINDI SECOND LANGUAGE, II YEAR - III SEMESTER, 3-02-R20

UNIT

1. काव्यदीप (Old and Modern Poetry)	1. कबीरदास – साखी -1-19	ज्ञानाश्रयी शाखा के कवि कबीरदास जी ने साखी के द्वारा आधुनिक समाज में होनेवाली सामाजिक कुरीतियों और धार्मिक बाह्याडम्बरों और ज्ञान सम्बन्धी विषयों के बारे में बताया
	2. सूरदास का बालवर्णन	कृष्ण भक्त शाखा के कवि सूरदास ने भगवन और भक्त के बीच की सम्बन्ध और बालकृष्ण के सुन्दरता तथा नटकटपन का वर्णन किया.
	3. भिक्षुक	सूर्यकांत त्रिपाटी निराला जी इस कविता के द्वारा देश की गरीबी दशा और दुस्थिति का प्रतिबिम्ब भिक्षुक में दिखाते हुए देश की परिस्थिति हमारे सामने रखा
	4. आगे बढ़, ऊँचे चढो	मैथिलीशरण गुप्त जी ने इस कविता के द्वारा भारत देशवासियों को भाग्य पर नहीं अपने श्रम पर भरोसा रहने का प्रेरणा देते है
	5. चरण चले, ईमान चले	माखनलाल चतुर्वेदी जी इस कविता के द्वारा भारत देश की आजादी के लिए प्राण दिए अमरवीरों को याद दिलाते हुए देशवासी ईमान के साथ अपना चरण देश की उन्नति की ओर बढ़ चलने का सन्देश दिया है.
2. हिंदी साहित्य का इतिहास (History of Hindi Literature)	भक्तिकाल – स्वर्ण युग ज्ञानाश्रयी शाखा – कबीर प्रेमाश्रयी शाखा – जायसी	हिंदी साहित्य का इतिहास के काल विभाजन, भक्तिकाल की विशेष तायें, भक्तिकाल की परिस्तिथियां, भक्तिकाल की विविध धाराएँ जैसे ज्ञानाश्रयी, प्रेमाश्रयी, रामभक्त, कृष्णा भक्त शाखा का परिचय मिलता है
3. साधारण निबंध (General Essays)	नारी शिक्षा का महत्व प्रदूषण का खतरा विश्व भाषा के रूप में हिंदी भारत की वर्त्तमान समास्याए स्वच्छ भारत	इन निबंधों के द्वारा समाज में रहे सभी प्रकार के विषयों और समस्याओ के बारे में अवगत किया गया है
4. अनुवाद (Translation)	अनुवाद – अंग्रेजी से हिदी, तेलुगु से हिंदी (3-4 Lines)	अनुवाद का महत्त्व और उपयोग बताते हुए अवुवादक, द्विभाषिया बनने का क्षमता निर्माण करना .
5. प्रयोजनमूलक हिंदी (Functional Hindi)	सरकारी पत्र (official letters) परिपत्र कार्यालय ज्ञापन अधिसूचना	सरकारी कार्यालयों में उपयोग करनेवाले पत्रों के बारे में बताया गया है .

HINDI SECOND LANGUAGE, I YEAR - I SEMESTER, 1-02-R20

UNIT

1. गध्य सन्देश (Prose)	1. भारतीय साहित्य की एकता	नंददुलारे बाजपेई जी द्वारा लिखित इस निबंध में जीवन में साहित्य के सभी मूल्यों और उपयोग, भारतदेश की एकता में साहित्य का महत्व को बताया .
	2. आत्मनिर्भरता	पंडित बालकृष्ण भट्ट ने इस निबंध के द्वारा देशवासियों को भाग्य पर नहीं अपने भरोसे (आत्मनिर्भरता) रहने के लिए कहते है,
	3. अंदर की पवित्रता	डॉ. हजारीप्रसाद द्विवेदी जी ने इस निबंध के द्वारा आजाद भारत के सामने रहे अनेक चुनोतियाँ और ऐतिहासिक धरोहरों व महापुरुषों के आदर्शों के महत्व को छात्रों को बताया.
2. कथा लोक (Short Stories)	1. ठाकुर का कुआँ	इस कहानी के द्वारा उपन्यास सम्राट प्रेमचंद जी ने अछूत समस्या और परिवारों में स्त्रियों की दीन दशा के बारे में बताया .
	2.वापसी	इस कहानी के द्वारा लेखिका उषा प्रियंवदा जी एक निम्न मद्यावार्गीय परिवार के बिखराव और नयी पीढ़ी की आधुनिक जीवन शैली तथा हृदयहीनता पर प्रकाश डाला .
	3. सदाचार का ताबीज	प्रसिद्ध व्यंगकार हरिशंकर परसाई जी ने इस कहानी के द्वारा समाज में फैले हुए भ्रष्टाचार के बारे में, उसके निर्मूलन के बारे में व्यंगात्मक शैली में बताया.
3. व्याकरण (Grammar)	लिंग, वचन, काल, विलोम शब्द	हिंदी व्याकरण को हम जीवन में किस प्रकार प्रयोग करता है और व्यकरण की महत्व को बताया .
4. व्याकरण (Grammar)	कार्यालयी हिंदी (पारिभाषिक शब्दावली – अंग्रेजी से हिंदी, हिंदी से अंगेजी)	इस के द्वारा सरकारी कार्यालयों में प्रयुक्त कार्यालयीन हिंदी भाषा का ज्ञान और उसको किस प्रकार हिंदी से अंग्रेजी और अंग्रेजी से हिंदी अनुवाद करना बच्चों को बताया .
5. पत्र लेखन (Letter Writing)	व्यक्तिगत पत्र (छुट्टी पत्र, पिता, मित्र के नाम पत्र, पुस्तक विक्रेता के नाम पत्र)	मानव जीवन में पत्र लेखन की महत्व, पत्र को किस प्रकार लिखना और पत्रों के द्वारा होनेवाले कार्यों के बारे में बताया.

HINDI SECOND LANGUAGE, I YEAR - II SEMESTER, 2-02-R20

UNIT

1. गध्य सन्देश (Prose)	संस्कृति और साहित्य का परस्पर संबंध	डॉ जी सुन्दर रेड्डी ने इस निबंध के द्वारा भारतीय साहित्य और संस्कृति का मानव जीवन में कितना महत्व है और इस के द्वारा व्यक्ति का विकास कैसे होते है यह विषय बताया .
	भारत एक है	रामधारि सिंह दिनकर जी ने इस निबंध के द्वारा अखंड भारत की विशेषता को बताया है . भारत में विभिन्न संस्कृति, संप्रदाय, अनेक भाषाएँ रहने पर भी भारतीयों में एकता की भावना किस प्रकार है यह बताया .
	हेच.आई.वी (AIDS)	श्रीमती सधाना मौर्य ने इस वैज्ञानिक निबंध के द्वारा हेच.आई.वी / एड्स का इतिहास,इसका आगमन और फैलाव, लक्षण और संक्रमण जैसे विषयों को बताया .
2. कथा लोक (Short Stories)	जरिया	इस कहानी के द्वारा चित्रा मृद्गल जी ने समाज की वर्त्तमान गतिविधियो में बढती धोखेबाजी – झूठे व्यवहार तथा लोगों में बढती स्वार्थ – प्रवृति का फर्दाफाश किया गाया .
	भूख हड़ताल	श्री बालशौरी रेड्डी जी ने इस कहानी के द्वारा करोड़ों लोगों के जीवन की समस्याओ को सामने रखा है, आधुनिक समाज में गरीब लोगों की जीवन गतिविधियों के बारे में बताया .
	परमात्मा का कुत्ता	मोहन राकेश ने इस कहानी के द्वारा सरकारी कार्यालयों में व्याप्त लालफीता-शाही, भ्रष्टाचार तथा उदासीनता का सजीव चित्रण किया है.
3. व्याकरण (Grammar)	संधि विच्छेद	हिंदी व्याकरण को हम जीवन में किस प्रकार प्रयोग करता है और व्यकरण की महत्व को बताते हुए संधि को विच्छेद करना और प्रकार सिखाना
4. व्याकरण (Grammar)	कार्यालयीन हिंदी शब्दावली (अंग्रेजी – हिंदी) प्रशासनिक शब्द - (हिंदी - अंग्रेजी)	इस के द्वारा सरकारी कार्यालयों में प्रयुक्त कार्यालयीन हिंदी भाषा का ज्ञान और उसको किस प्रकार हिंदी से अंग्रेजी और अंग्रेजी से हिंदी अनुवाद करना बच्चों को बताया ..
5. पत्र लेखन (Letter Writing)	आवेदन पत्र और शिकायती पत्र	मानव जीवन में पत्र लेखन की महत्व, पत्र को किस प्रकार लिखना और पत्रों के द्वारा होनेवाले कार्यों के बारे में बताया

SEMESTER - I HSC -101- BASIC NUTRITION **Outcomes of the course** **At the end of the course the student will be able to learn the following:**	
CO:1	Understanding the concepts of nutrition and food and its relation to health.
CO:2	Acquiring knowledge about macro and micro nutrients and their functions & deficiency symptoms
CO:3	Understanding importance of non-nutrients in human nutrition
CO:4	Planning recipes by selecting appropriate foods based on the macro and micro nutrient composition.
CO:5	Selection of foods based on the nutrient composition for healthy and disease people.
CO:6	Planning and calculating nutritive values for the foods and recipes.
CO:7	Identification of signs and symptoms of different nutrient disorders.
CO:8	Knowledge on availability of seasonal and other foods by doing market survey.
CO:9	Listing out the common foods and their names in scientific and local languages.
CO:10	Selection of foods based on seasonal availability and planning recipes on the nutrient composition to healthy and diseased conditions.

Practical skills	
CO: 1	Market survey on different foods available and learning local and scientific names.
CO: 2	Learn to identify different food samples and to know their nutrient composition.
CO: 3	Planning of recipes according to nutrient components.

SEMESTER - I	
HSC-102 –GENERAL PSYCHOLOGY	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	The concept of psychology and its branches of study.
CO: 2	About basic psychological concepts like Attention, Perception, , Memory and Motivation
	Understand and Use
CO: 3	Understand the meaning of Personality
CO: 4	Use theoretical perspectives of Psychology to understand human behaviour.
	Critically explains, judges
CO: 5	The determining factors of human personality.
	Working in out of prescribed areas under co-curricular activity
CO: 6	Observing different types of personalities based on type theory
CO: 7	Identifying children with extremes of intelligence in local schools.

Practical skills	
CO: 1	Methods of study of children using different methods.
CO: 2	Assessment of personality and intelligence using standard tests.

SEMESTER - I	
HSC-103 –HOUSING FOR BETTER LIVING	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Importance of house for better living
CO: 2	Requirements to purchase land, building materials protection and care of house
	Understand and Use
CO: 3	Principles of planning a house with an emphasis on kitchen plans
CO: 4	Types and properties of building materials
	Critically explains, judges
CO: 5	Planning of different rooms in a house. House plans for different income groups. Advantages and disadvantages of own and rented house. Protection of house from dampness, termites, fire etc., Selection and purchase of equipment for the house.
	Working in out of prescribed areas under co-curricular activity
CO: 6	Study of building materials and equipment which are not included in the syllabus
CO: 7	Visiting Places –Building sites/ Construction

Practical skills	
CO: 1	Drawing of floor plans of houses for different income groups using symbols.
CO: 2	Drawing of different kitchen plans
CO: 3	Study and identification of different building materials.
CO: 4	Study of electrical and non-electrical equipment for the house, their operation and care.

SEMESTER - II	
HSC - 201 – INTRODUCTION TO FOOD SCIENCE (FN-2)	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Understanding the concepts of nutrition and food and its relation to health. Acquiring knowledge about macro and micro nutrients and their functions.
CO: 2	Knowing the consequences of deficiency of taking nutrients. Understanding importance of non-nutrients in human nutrition
	Understanding and Uses
CO: 3	Planning recipes by selecting appropriate foods based on the macro and micro nutrient composition.
CO: 4	Selection of foods based on the nutrient composition for healthy and disease people.
	Critically explain, judge and Solve
CO: 5	Planning and calculating nutritive values for the foods and recipes. Identification of signs and symptoms of different nutrient disorders
CO: 6	Knowledge on availability of seasonal and other foods by doing market survey. Listing out the common foods and their names in scientific and local languages.
	Creativity in
CO: 7	Selection of foods based on seasonal availability and planning recipes on the nutrient composition to healthy and diseased conditions

Practical Skills	
CO: 1	Market survey on different foods available and learning local and scientific names
CO: 2	Learn to identify different food samples and to know their nutrient composition
CO: 3	Planning of recipes according to nutrient components.

SEMESTER - II	
HSC-202– FUNDAMENTALS OF TEXTILES (TEX-I)	
Outcomes of the course **At the end of the course the student will be able to learn the following:**	
	Remember and explain in a systematic way
CO: 1	The importance of the textiles in human life and also the textile terminology and types of fibres.
CO: 2	Use of Textile fibres in various fields.
	Understands and Uses
CO: 3	Identification of different fibres like plant fibres, animal fibres based on properties.
CO: 4	Gains knowledge on manufacturing of different textile fibers.
CO: 5	Understands the method of Spinning and process of yarn construction.
	Critically explains, judges
CO: 6	Critical differences between cellulose, protein and man-made fibres.
CO: 7	Judge the differences between simple and novelty yarns.
	Working in out of prescribed areas under co-curricular activity
CO: 8	Collection of different fabrics and gain knowledge about their seasonal usage.

Practical Skills	
CO: 1	Identification of different textile fibres using microscopic, burning tests.
CO: 2	Identification of yarns and their use in textiles.

SEMESTER - II	
HSC- 203 – FUNDAMENTALS OF HOME SCIENCE EXTENSION (EXT-1)	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Learn the meaning, scope and concept of Home Science Extension.
CO: 2	Explain the importance of Extension Education in Home Science
	Understand and Use
CO: 3	Understand the role Extension worker in community
CO: 4	Understand the Principles, steps in Teaching and Learning process
	Critically explains, judges
CO: 5	Qualities of an Extension Worker
CO: 6	Different Teaching Methods and Teaching Aids in Communication Process.
	Working in out of prescribed areas under co-curricular activity
CO: 7	Know the importance of Teaching Methods and Teaching Aids in Communication Process.
CO: 8	Know the barriers of communication and learn how to overcome them.

Practical skills	
CO: 1	Learn Practical skills in planning, preparation of Audio-Visual Aids
CO: 2	Usage of bulletin board in extension education
CO: 3	Use of different types of Teaching methods and Audio-Visual Aids for different target groups.

SEMESTER - III	
HSC-301 –COMMUNITY NUTRITION (FN – 3)	
Outcomes of the course **At the end of the course the student will be able to learn the following:**	
	Remembers and explain in a systematic way
CO: 1	Understanding the nutritional problems and nutrition requirements of the community.
CO: 2	Acquiring knowledge about RDA, food groups, steps in planning a diet.
	Understanding and Uses
CO: 3	Planning of nutrition diets according to RDA for different age groups- Infancy to old age and physiological conditions -Pregnancy and lactation
CO: 4	Different methods of assessing nutritional status –Anthropometry, biochemical, clinical examination and diet survey etc.,
	Critically explains, judges & Solves
CO: 5	Preparation of nutritious diets for different age groups meeting the RDA.
CO: 6	ABCD-techniques for nutritional status assessment.
	Working in out of prescribed areas
CO: 7	Planning programs to combat nutritional problems in community.

Practical skills	
CO: 1	Planning & Preparation of diets for different age groups
CO: 2	Calculations of nutritive values of the diets and RDA for different age groups.
CO: 3	Nutrition education techniques.
CO: 4	Assessment of nutritional status using ABCD techniques.

SEMESTER - III	
HSC – 302 – PRINCIPLES OF GARMENT CONSTRUCTION (TEX-2) **Outcomes of the course** **At the end of the course the student will be able to learn the following:**	
	Remember and explain in a systematic way
CO: 1	Explain the different sewing equipment used in garment construction.
CO: 2	Recall the different parts of sewing machine and its function.
	Understands and Uses
CO: 3	Understand the use of sewing machine and ways to stitch fabrics.
CO: 4	Learn to identify the defects and to know the adjustments of sewing machine.
CO: 5	To know the different body measurements to stitch a garment.
	Critically explains, judges
CO: 6	Analyse the estimation of fabric for different garments.
CO: 7	Evaluate the stitching and fitting of the garments.
	Working in out of prescribed areas under co-curricular activity
CO: 8	Visiting nearby tailoring units and observing different garment components.
CO: 9	Visiting nearby Ready-made clothing shops and observing different garment components

Practical skills	
CO: 1	Adjustments and care of using a sewing machine
CO: 2	Method of taking perfect body measurements and pattern making.
CO: 3	Using drafting equipment and Systematic method of drafting
CO: 4	Stitching different basic stitches
CO: 5	Stitching necklines, collars , plackets and sleeves,
CO: 6	Drafting and construction of saree petti coat and frock

SEMESTER - III	
HSC - 303 – CHILD DEVELOPMENT (HD-1)	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Scientific knowledge about child-development, and Developmental tasks at various stages of child development.
CO: 2	The childhood problems, special needs of challenged children and their management.
	Understand and Use
CO: 3	Understand the stages of pregnancy and birth process.
CO: 4	Use basic principles for assessment of various developments during childhood.
	Critically explains, judges
CO: 5	The developmental milestones and can identify developmental delays.
CO: 6	About parenting styles adopted by parents and impact of different parenting styles on child's behaviour.
	Working in out of prescribed areas under co-curricular activity
CO: 7	Observation of neonatal characteristics by visiting a maternity hospital.
CO: 8	Familiarise with childhood disabilities by visiting local centres for special children.

Practical skills	
CO: 1	Assessment of different developments like physical, social and cognitive development of children belonging to different age groups.
CO: 2	Learn the method of assessment of behaviour problems among children using a check list.

SEMESTER - IV	
HSC- 401 - THERAPEUTIC NUTRITION (FN – 4)	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Understands the meaning, objectives and purpose of therapeutic nutrition.
CO: 2	Understands the importance of modified diets – Therapeutic diets.
	Remember and Apply
CO: 3	The importance of Pre and Post-operative diets and memorize while planning diets
	Understands and Uses
CO: 4	Planning and preparation of diets for different diseases like Obesity, Cardiovascular, Renal, Diabetes mellitus etc,
	Critically explains, judges
CO: 5	Calculation of Nutrient Requirements and describe modification of the diets for complications in different disease conditions.
	Working in out of prescribed areas under co-curricular activity
CO: 6	Planning diets according to the RDA considering the disease condition of the patient.
CO: 7	Preparation of diets for the patients in acceptable manner by applying their own choice of foods.

Practical skills	
CO: 1	Planning diets and calculation of nutritive values for different disease conditions.
CO: 2	Preparation and demonstration of display of the planned diet in the laboratory.
CO: 3	Diet counselling and patient education.

SEMESTER – IV	
HSC - 402 – FABRIC CONSTRUCTION & APPAREL CARE (TEX-3)	
Outcomes of the course **At the end of the course the student will be able to learn the following:**	
	Remember and explain in a systematic way
CO: 1	Concepts of Grain- fabric count, Thread count, balance, selvedge weft and warp etc.
CO: 2	Meaning of knitting, weaving and finishes in fabric construction.
	Understands and Use
CO: 3	Knowledge in selection of clothing.
CO: 4	Learn the process of laundering to different fabrics like cotton, woollen, silk etc.
	Critically explains
CO: 5	Different methods of fabric construction
CO: 6	Examine the use of finishes in textile field.
CO: 7	Analyze the selection of clothing and planning of wardrobe
	Working in out of prescribed areas under co-curricular activity
CO: 8	Visit to weaving centre and dry cleaning centres.
CO: 9	Identify methods of removing stains in fabrics

Practical skills	
CO: 1	Identify and prepare different weaves.
CO: 2	Examine the thread count of the fabric and analyse its balance for durability.
CO: 3	Removing different stains on fabric.
CO: 4	Drafting and stitching of Salwar and Kameez.

SEMESTER - IV	
HSC-403 -HUMAN DEVELOPMENT AND FAMILY DYNAMICS (HD-2)	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Factors essential for harmonious and wholesome family living.
CO: 2	Knowledge on pubertal changes, adolescence and appreciate value of marriage in Indian families
CO: 3	Meaning of Pre-marital counselling and Post - marital counselling
	Understand and Use
CO: 4	Understand the need for planning and preparation of parenthood.
CO: 5	Understand the importance of adjustments to strengthen marital and family relationships
	Critically explains, judges
CO: 6	Problems of adolescence during each sub stage and coping up strategies.
	Working in out of prescribed areas under co-curricular activity
CO: 7	Visiting counselling centres and understanding coping up strategies of problems
CO: 8	Familiarise with problems of elderly through case studies and institutional visits.

Practical skills	
CO: 1	Methods of study of adolescent problems using scales and schedules
CO: 2	Case study method to find out the adjustment problems of married couple.
CO: 3	Case study method to find out the Physical and Psychological problems of elderly

SEMESTER - IV	
HSC-404 -BIOCHEMISTRY (FN-5)	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Understands the metabolism of different macro and micro nutrients in human physiology.
CO: 2	Acquires knowledge on factors affecting digestion, absorption of nutrients.
CO: 3	Knowledge on enzymes and its role in nutrient metabolism. Learn to selects foods based on nutrient chemical components
	Understand and Use
CO: 4	Understand the functions of foods - biochemically, physiologically and metabolically
CO: 5	Understands nutritional needs in healthy individuals and in and diseased conditions.
	Critically explains, judges
CO: 6	Study the metabolism of Vitamins and various minerals.
	Working in out of prescribed areas under co-curricular activity
CO: 7	Identifies nutrients in foods.
CO: 8	Estimates Qualitative and quantitative analysis of nutrients in different foods. Identifies Food enzymes

Practical skills	
CO:1	Tests for identification of mono, Di and polysaccharides, proteins and amino acids, fats and enzymes.
CO:2	Observing in hospitals/ private laboratories analysis methods according to the person to person metabolism
CO:3	Observing therapeutic diets in hospitals according to the person to person metabolism.

SEMESTER - IV HSC- 405 –INTERIOR DESIGN AND DECORATION (HM – 2) **Outcomes of the course** **At the end of the course the student will be able to learn the following:**	
	Remember and explain in a systematic way
CO: 1	Explain design, types of design, elements, Principles of design and colour harmonies.
CO: 2	Understands colour concept, lighting methods and arts to decorate the interiors based on aesthetic performance.
CO: 3	Acquire knowledge on selecting appropriate building materials, equipment and finishes with regard to safety and eco-friendly construction.
	Understand and Use
CO: 4	Apply the elements and principles of design and colour harmonies in the arrangement of furniture, accessories in different rooms, flower arrangement and table setting
	Critically explains, judges
CO: 5	Factors affecting the purchase of furniture, colour harmonies in different rooms
	Working in out of prescribed areas under co-curricular activity
CO: 6	Learn elements and principles of design by drawing, painting by collecting pictures from magazines
CO: 7	Preparation of Chart , Posters and albums using principles of art & design
CO: 8	Observation of Flower Arrangements at different places.

Practical skills	
CO: 1	Learn elements and principles of design by drawing, painting by collecting pictures from magazines
CO: 2	Learn to arrange furniture in different rooms by applying elements and principles of design
CO: 3	Learn to make Flower Arrangements by applying elements & principles of design
CO: 4	Learn to lay the table formal and informal parties.

SEMESTER - IV	
HSC - 406 - EXTENSION EDUCATION AND COMMUNITY DEVELOPMEN (EXT-2)	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Features of rural, urban and tribal communities
CO: 2	Meaning of community development
	Understands and Uses
CO: 3	Importance of Programme Planning in organising community development programmes
CO: 4	Planning lessons for specific groups
	Critically explains
CO: 5	Role of various Governmental and Non-Governmental agencies in Community development
CO: 6	Objectives and services rendered by Governmental and Non-Governmental agencies to the community.
CO: 7	**Working in out of prescribed areas under co-curricular activity**
CO: 8	Learn about Panchayat Raj set-up at different levels, by visiting and exploring with Government officials and village heads.

Practical skills	
CO: 1	Planning, Preparation and execution of lessons in the classrooms and community.
CO: 2	Conducting project work on community development programmes.

SEMESTER - V	
HSC-16 A – FOOD & BEVERAGE PRODUCTION	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Factors essential for harmonious and wholesome family living.
CO: 2	Knowledge on pubertal changes, adolescence and appreciate value of marriage in Indian families
CO: 3	Meaning of Pre-marital counselling and Post - marital counselling
	Understand and Use
CO: 4	Understand the need for planning and preparation of parenthood.
CO: 5	Understand the importance of adjustments to strengthen marital and family relationships
	Critically explains, judges
CO: 6	Problems of adolescence during each sub stage and coping up strategies.
	Working in out of prescribed areas under co-curricular activity
CO: 7	Visiting counselling centres and understanding coping up strategies of problems
CO: 8	Familiarise with problems of elderly through case studies and institutional visits.

Practical skills	
CO: 1	Methods of study of adolescent problems using scales and schedules
CO: 2	Case study method to find out the adjustment problems of married couple.
CO: 3	Case study method to find out the Physical and Psychological problems of elderly

SEMESTER - VI	
HSC- 17 A – FOOD AND BEVERAGE SERVICE **Outcomes of the course** **At the end of the course the student will be able to learn the following:**	
	Remember and explain in a systematic way
CO: 1	Knowledge on types of catering establishments.
CO: 2	Duties and responsibilities of F&B staff.
	Understand and Use
CO: 3	Understand and differentiate the services and storage equipment.
CO: 4	Care and maintenance of F&B equipment.
	Critically explains, judges
CO: 5	Analyse and compare the styles of food service.
CO: 6	The factors influencing the styles of food service.
	Working in out of prescribed areas under co-curricular activity
CO: 7	Create knowledge to compile the aperitifs and main course.
CO: 8	Evaluate the food service methods and procedure.
CO: 9	Formulate alcoholic and non-alcoholic beverages.

Practical skills	
CO: 1	Identify and handle various types of equipment and food and beverage services.
CO: 2	Demonstrate the methods of various styles of food service.
CO: 3	Exhibit skills in table setting and food order taking.
CO: 4	Acquire skills in use, care and maintenance of F&B equipment.
CO: 5	Perform skills related to preparation and service of food, alcoholic and non-alcoholic beverages..

SEMESTER - VI	
HSC-18 A – Methods and Materials for Pre-school Education	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Scientific knowledge about need and importance of Pre-school education.
CO: 2	Different activities for promoting language development.
	Understand and Use
CO: 3	Understand use of different materials for pre-school curriculum.
	Critically explains, judges
CO: 4	Knowledge about various pre-school activities for pre-school children.
CO: 5	Prepare audio-visual aids for different activities.
	Working in out of prescribed areas under co-curricular activity
CO: 6	Apply skills in preparing readiness activities
CO: 7	Prepare materials appropriate for teaching pre-school children using indigenous materials.

Practical skills	
CO: 1	Study and observe different methods and techniques used for pre-school education.
CO: 2	Demonstrate skills in teaching stories for young children.
CO: 3	Exhibits skills in preparation of art file appropriate for young children.

SEMESTER VI	
HSC -19A IEC MATERIALS FOR COMMUNITY DEVELOPMENT	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Develop the concept and meaning of IEC
CO: 2	Meaning of community development
	Understands and Uses
CO: 3	Importance of Programme Planning in organising community development programmes
CO: 4	Planning lessons for specific groups
	Critically explains
CO: 5	Role of IEC and IT in Community development
CO: 6	Selection and Usage of various IEC materials
CO: 7	**Working in out of prescribed areas under co-curricular activity**
CO: 8	Plan, prepare and execute the ability in designing IEC material

Practical skills	
CO: 1	Planning, Preparation and execution of effective IEC materials for community development.
CO: 2	Conducting project work on community development programmes.

SEMESTER - V	
HSC-20 A – FAMILY RESOURCE MANAGEMENT	
Outcomes of the course	
At the end of the course the student will be able to learn the following:	
	Remember and explain in a systematic way
CO: 1	Resources its types, classification and characteristics.
CO: 2	Knowledge on the guidelines for the use of resources
	Understand and Use
CO: 3	Understand the various steps in management process and its importance.
	Critically explains, judges
CO: 4	Types of values, goals and standards, their characteristics and relationship.
CO: 5	Explain the kinds of decision making, steps in decision making and importance of decision making in a family.
CO: 6	Study the qualities of a good home maker
	Working in out of prescribed areas under co-curricular activity
CO: 7	Identify the human and non-human resources used in our day to day life

Practical skills	
CO: 1	Identify and list out the human and non-human resources used in our day to day life
CO: 2	Identifying the advantages of community resources.

SEMESTER – V	
HSC- 21 A – TEXTILE DESIGN	
Outcomes of the course **At the end of the course the student will be able to learn the following:**	
	Remember and explain in a systematic way
CO: 1	Concepts of Grain- fabric count, Thread count, balance, selvedge weft and warp etc.
CO: 2	Meaning of knitting, weaving and finishes in fabric construction.
	Understands and Use
CO: 3	Knowledge in selection of clothing.
CO: 4	Learn the process of laundering to different fabrics like cotton, woollen, silk etc.
	Critically explains
CO: 5	Different methods of fabric construction
CO: 6	Examine the use of finishes in textile field.
CO: 7	Analyze the selection of clothing and planning of wardrobe
	Working in out of prescribed areas under co-curricular activity
CO: 8	Visit to weaving centre and dry cleaning centres.
CO: 9	Identify methods of removing stains in fabrics

Practical skills	
CO: 1	Identify and prepare different weaves.
CO: 2	Examine the thread count of the fabric and analyse its balance for durability.
CO: 3	Removing different stains on fabric.
CO: 4	Drafting and stitching of Salwar and Kameez.

Department of Mathematics

PROGRAMME OUTCOMES

- **PO-1**: Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study, enhancing scientific temper in young minds. (Scientific Knowledge)
- **PO-2**: Problem solving skills of students are enhanced by analyzing the practical and real life problems with appropriate application of mathematical concepts. (Problem analysis)
- **PO-3**: This programme helps learners in building a solid foundation for higher studies in mathematics and ability to pursue advanced studies and research in pure and applied mathematical science. (conduct investigations of Complex problems)
- **PO-4**: Introduction of various courses like Differential equations, Solid Geometry, Real Analysis, Abstract Algebra, Linear Algebra, Calculus, Integral Transform and Numerical Analysis suggest the methods to identify, formulate and solve the day to day problems arising in physical, chemical and biological disciplines. (Design / development of solutions)
- **PO-5**: Ability to show the importance of mathematics as precursor to various scientific developments since the beginning of the civilization. (Science and Society)
- **PO-6**: Developing appropriate mathematical model plays an important role towards sustainable development of earth. (Environment and sustainability)
- **PO-7**: Ability to identify unethical behavior such as fabrication, falsification or misrepresentation of data and adopting objective, unbiased and truthful actions in all aspects. (Ethics)
- **PO-8**: Ability to communicate various concepts of mathematics effectively using examples and their geometrical visualizations. (Communication)
- **PO-9**: Enhancing students' overall development and equip them with mathematical modeling abilities, problem solving skills, creative talent and power of communication to perform a task effectively as an individual or as a member or leader in diverse team in multidisciplinary setting. (individual and team work)
- **PO-10**: Ability to think, acquire knowledge and skills through logical reasoning and to inculcate the habit of self-learning. (Lifelong learning)
- **PO-11**: This programme will also help students to enhance generic skills helpful in their employability for government jobs, jobs in banking employment, internships and social activities, insurance and investment sectors, data analyst jobs and jobs in various other public and private enterprises. (Future Employability)
- **PO-12**: Successful Completion of this programme will also enable the learners to join teaching profession in primary and secondary schools. (Competency)

PROGRAMME SPECIFIC OUTCOMES

- **PSO-1**: Formulate and develop mathematical arguments in logical manner thinking critically.
- **PSO-2**: Acquire good knowledge and understanding to solve specific theoretical and applied problems in advanced areas of mathematics, statistics and its allied areas of multiple disciplines concerned with mathematics.
- **PSO-3**: Encourage the students to develop a range of generic skills helpful in employment, internships and social activities.
- **PSO-4**: Students will be aware of and able to develop solution oriented approach towards various Social and Environmental issues.
- **PSO-5**: The skills and knowledge gained leads to proficiency in analytical reasoning which can be utilized in modelling and solving real life problems.
- **PSO-6**: Ability to communicate various concepts of mathematics effectively using examples and their geometrical visualizations.
- **PSO-7**: Ability to explain the development of mathematics in the civilizational context and its role as queen of all sciences.
- **PSO-8**: Theoretical concepts are strengthened by solving maximum number of problems

Course Outcomes

First Year B.Sc (Mathematics) – I Semester

Course title: Differential Equations

UNIT 1: DIFFERENTIAL EQUATIONS OF FIRST ORDER and FIRST DEGREE

Course Outcomes:

- Understand the genesis of ordinary and partial differential equations.
- Student will be able to solve first order differential equations utilizing the standard techniques for separable, exact, linear, homogeneous or Bernoulli cases.
- Learn to differentiate homogenous and non-homogenous differential equations and methods for solving.

UNIT 2: DIFFERENTIAL EQUATIONS OF FIRST ORDER but not of FIRST DEGREE

Course Outcomes:

- To solve system of first order but not of first degree differential equations.
- Grasp the concept of a general solution of a differential equation of higher degree and also learn a few methods to obtain the general solution of such equations (solvable for p, solvable for x, solvable for y and Clairaut's form).

UNIT 3: HIGHER ORDER LINEAR DIFFERENTIAL EQUATIONS – I

Course Outcomes:

- Understanding higher order linear differential equations.
- To learn methods to solve higher order linear differential equations with constant coefficients.
- Student will be able to evaluate the complete solution of a differential equation as a linear combination of the complementary function and a particular solution.

UNIT 4: HIGHER ORDER LINEAR DIFFERENTIAL EQUATIONS – II

Course Outcomes:

- Classify particular integral for a given linear differential equations with constant co-effecients by means of polynomial operators.
- Learn various techniques of getting exact solutions of solvable differential equations and linear differential equations of higher order.

UNIT 5: HIGHER ORDER LINEAR DIFFERENTIAL EQUATIONS – III

Course Outcomes:

- Evaluate higher order linear differential equations using method of variation of parameters.
- Student will understand the working knowledge of basic application problems described by higher order linear differential equations with non-constant coefficient.

First Year B.Sc (Mathematics) – II Semester

Course title: Solid Geometry

UNIT 1: THE PLANE

Course Outcomes:

- Discussion of analytical geometry of 2 dimensional extending to 3 dimensional and their relation.
- Implementing the concepts to find the different forms of the equation of plane and system of planes.
- Find the angle between planes, bisector planes, perpendicular distance from a point to a plane, image of a line on a plane, intersection of two lines.

UNIT 2: THE LINE

Course Outcomes:

- Relate the equation of line in 2 dimension and 3 dimension.
- Compute angle between a line and a plane, length of perpendicular from a point to a line.
- Describe Skew lines.
- Calculate the shortest distance between Skew lines.

UNIT 3: THE SPHERE

Course Outcomes:

- Define and formulate the equation of sphere through four non-coplanar points.
- Formulating the equation of circle from intersection of two spheres and intersection of plane and sphere.

UNIT 4: SPHERE &CONES

Course Outcomes:

- Finding the angle between two spheres.
- Understanding the concept of orthogonal spheres and coaxal system of spheres.
- Understanding the concept of cone, vertex, guiding curve and generators.
- Formulating the equation of cone with a given vertex and guiding curve.
- Examine the condition that the general equation of second degree should represent a cone and the condition that a plane touches the cone.

UNIT 5:

Course Outcomes:

- Describe the concepts of Reciprocal cones and Right circular cone.
- Understanding the concept of Enveloping cone of a sphere and related problems.

Second Year B.Sc (Mathematics) – III Semester

Course title: Abstract Algebra

UNIT 1: GROUPS

Course Outcomes:

- Understand the importance of algebraic properties with regard to working within various number systems.
- Recognize the mathematical objects called groups.
- To learn fundamental properties and mathematical tools such as closure, identity, inverse and generators.
- Students will be able to describe the properties imposed by the definitions of groups.
- Students will be able to examine whether a given binary operations on the given set is a group structure by applying the axioms.

UNIT 2: SUBGROUPS

Course Outcomes:

- Student will be able to interpret that a given sub set of a group is a sub group by applying the properties.
- Explain the significance of the notions of cosets and factor groups.
- Analyze consequences of Lagrange's theorem.

UNIT 3: NORMAL SUBGROUPS

Course Outcomes:

- Analyze and demonstrate examples of sub groups, normal sub groups and quotient groups.
- Students will be able to identify that intersection of two normal subgroups is a normal subgroup.

HOMOMORPHISM and ISOMORPHISM of GROUPS

Course Outcomes:

- Learn to compare two different algebraic structures and study transfer of properties in-between these structures through homomorphism and isomorphism.
- Learn to interpret about structure preserving maps between groups and their consequences.
- Student will be able to understand the homomorphism and isomorphism by identifying the relationship between groups.

UNIT 4 :PERMUTATIONS and CYCLIC GROUPS

Course Outcomes:

- Relate group structure to finite permutation groups (Caley Hamilton Theorem).
- Student will be able to describe all elements in a cyclic subgroup by using generators.

UNIT 5: RINGS

Course Outcomes:

- Learn the algebraic structure Ring and subrings in detail through various examples.
- Distinguish between ring and field.
- To learn the construction of field of quotients of an integral domain.
- Classification of various integral domains in ring.Study of ideals, notion of ideals and concept related to ideal.Analyze and demonstrate examples of ideal

Second Year B.Sc (Mathematics) – IV Semester

Course title: Real Analysis

UNIT 1: REAL NUMBERS & SEQUENCES

Course Outcomes:

- Describe fundamental properties of the real numbers that lead to the formal development of real analysis.
- Construct rigorous mathematical proofs of basic results in real analysis
- Understand many properties of the real line $\mathbb{R}$ and learn to define sequence in terms of functions from $\mathbb{R}$ to a subset of $\mathbb{R}$.

- Recognize bounded, convergent, divergent, Cauchy and monotonic sequences and to calculate their limit superior, limit inferior, and the limit of a bounded sequences.
- Students will be able to define and prove properties of different types of sequence.

UNIT 2: INFINITE SERIES

Course Outcomes:

- Understand convergence and divergence of series with examples.
- Discuss the behavior of the geometric series.
- Describe theorems of different tests of convergence and divergence of a series of positive terms.
- Examine the given series is convergent or divergent by using different test.
- Apply the ratio, root, and alternating series and limit comparison tests for convergence and absolute convergence of an infinite series of real numbers.

UNIT 3: CONTINUITY

Course Outcomes:

- Demonstrate an understanding of limits and how they are used in sequences, series,
- Illustrate the effect of uniform convergence on the limit function with respect to continuity, differentiability, and integrability.

UNIT 4: DIFFERENTIATION & MEAN VALUE THEORMS

Course Outcomes:

- Understand the derivability of a function on an interval and at a point.
- Understand the graphical meaning of the derivative.
- Learn about the mean value theorems and their applications(Rolle's Theorem, Lagrange's Theorem and Cauchy's Mean Value Theorem)

UNIT 5: RIEMANN INTEGRATION

Course Outcomes:

- To study notion of lub and glb, this helps to learn integrations and to find area under any function.

- Understand Integrability and theorems on integrability.
- Learn some of the properties of Riemann integrable functions, and the applications of the fundamental theorems of integration.
- To learn Riemann Integral and its properties in detail, leading to fundamental theorem of calculus and Mean value theorems.
- Determine the Riemann Integrability of bounded functions.

Second Year B.Sc (Mathematics) – IV Semester

Course title: Linear Algebra

UNIT 1: Vector Spaces - I

Course Outcomes:

- Understand the concepts of vector spaces and subspaces with addition and scalar multiplication of vectors.
- Discuss about the algebra of subspaces, linear sum of two subspaces.
- Differentiation between linear combination of vectors and linear span of a set.

UNIT 2: Vector Spaces - II

Course Outcomes:

- Understand the concepts of basis, dimension of vector spaces and their properties.
- Describe Quotient space and dimension of quotient space.

UNIT 3: Linear Transformations

Course Outcomes:

- Define Linear Transformations and Linear operators.
- Describe properties of linear transformations and algebra of Linear operators.
- Interpret Rank – Nullity Theorem.

UNIT 4: Matrices

Course Outcomes:

- Memorize the elementary properties of matrices.
- Solve for eigenvalues and corresponding eigenvectors of a square matrix.

- Recognize consistent and inconsistent systems of linear equations by the echelon form of the augmented matrix using rank.
- Implementing Cayley - Hamilton theorem to find inverse of a square matrix.

UNIT 5: Inner Product Spaces

Course Outcomes:

Learn properties of inner product spaces and determine orthogonality in inner product spaces.

Explain Norm or Length of a vector.

- Examine Cauchy – Schwartz Inequality, Triangle inequality, and Parallelogram law theorems.
- Interpret orthogonality of vector spaces using Gram-Schmidt orthogonalization process.
- Examine Bessel's inequality and Parseval's identity.

Third Year B.Sc (Mathematics) – V Semester

Course title: Multiple integrals & Applications of Vector calculus

UNIT 1: MULTIPLE INTEGRALS-1

Course Outcomes:

- Learn multiple integrals as a natural extension of definite integrals to a function of two variables in the case of double integrals/three variable in case of triple integral.
- Learn multiple integrals as a natural extension of definite integrals to a function of three variable in case of triple integral.

UNIT 2: MULTIPLE INTEGRALS-2

Course Outcomes:

- Learn application in terms of finding surface area by double integral and volume by triple integral.
- Solve for the problems for 2D/ 3D in terms of change of variables(polar coordinates and spherical coordinates)

UNIT 3: VECTOR DIFFERENTIATION

Course Outcomes

- Discuss the derivative of a vector function and higher order derivatives of vectors.
- Define and interpret Differential operators – gradient, divergence and curl of a vector function at a point.
- Study the theorems related vector identities.

UNIT 4: VECTOR INTEGRATION

Course Outcomes:

- Describe the concept of Definite integral.
- Classify the Vector integration – Line Integral, Surface Integral and Volume Integrals with examples.

UNIT 5: VECTOR INTEGRATION APPLICATIONS

Course Outcomes:

- Discuss and interpret theorems of Gauss and Stokes, Green's Theorem in plane and their applications.
- Evaluate integrals by using Green's theorem, Stoke's theorem and Gauss theorem.

Third Year B.Sc (Mathematics) – V Semester

Course title: Integral transforms with applications

UNIT 1: Laplace Transforms - I

Course Outcomes:

- Able to examine Linearity property and existence of Laplace transform.
- Able to differentiate the properties of Laplace Transforms (First Shifting theorem, Second shifting theorem, Change of Scale Property, L. T of derivatives of F(t) and Initial & Final value theorems).
- Able to discuss the standard formulae in Laplace Transform and solve the problems.
- Able to differentiate the properties of Laplace Transforms (First Shifting theorem, Second shifting theorem, Change of Scale Property, L. T of derivatives of F(t) and Initial & Final value theorems).

- Able to execute the properties of L. T to find the L. T for the given F(t).

UNIT 2: Laplace Transforms – II

Course Outcomes:

- Able to examine the theorems on L. T of Integrals, multiplication by t & t^n and division by t.
- Able to execute the result of the theorems on finding the L. T of functions.
- Able to apply properties of Laplace transform to find L. T of special functions like Bessels function, Error function, Sine and Cosine functions.
- Able to explain piecewise continuous functions, Dirac delta function, definition of Laplace transforms with respect to kernel.

UNIT 3: Inverse Laplace Transforms

Course Outcomes:

- Able to learn the evaluation of Inverse Laplace transform of functions, their derivatives and integrals.
- Able to describe Convolution and Convolution theorem, also its application in solving the problems.
- Understand properties of inverse Laplace transforms,find inverse Laplace transforms of derivatives and integrals.

UNIT 4:Applications of Laplace Transforms

Course Outcomes:

- Solve ordinary differential equations with constant/variables co efficients by using Laplace transform method.
- Able to identify various Integral equations (Abel's Integral equation, Integral equation of Convolution type, Integral Differential Equation).
- Able to apply Laplace Transform to solve Integral Equations.

UNIT 5:Fourier Transforms

Course Outcomes:

- Able to explain definition of Fourier transform, Fourier sine and cosine transform of a function with respect to kernel.
- Comprehend the properties of Fourier transforms and solve problems related to finite Fourier transforms.
- Discuss the convolution theorem for Fourier transforms, parseval's identity and finite Fourier transforms.

SPW DEGREE AND PG COLLEGE, TIRUPATI

DEPARTMENT OF SOCIAL ANTHROPOLOGY

PROGRAMME OUTCOMES
PROGRAMME SPECIAL OUTCOMES
COURSE OUTCOMES
(2022 – 2023)

PROGRAMME : BA

SPECIFIC PROGRAMME : HPSA

SEMESTERS : I, II, III, IV & V

SPW DEGREE & PG COLLEGE, TIRUPATI

DEPARTMENT OF SOCIAL ANTHROPOLOGY

PROGRAMME OUTCOMES:

P01 : SCIENTIFIC KNOWLEDGE :

Identify and apply anthropological concepts and theories to understand social phenomena. Employ the evidence based on anthropological theories to analyse how cultures have responded to the challenges of globalization in various times and places.

P02 : SOCIAL ANTHROPOLOGY AND SOCIETY :

Social anthropologists seek to understand how people live in societies and how they make their lives meaningful. This is achieved through a comprehensive teaching of the concepts of anthropology.

P03 : CRITICAL THINKING :

Develop anthropological knowledge and skills that will enable to think critically and imaginatively about society and social issues.

P04 :PROBLEM ANALYSIS :

Identify formulate and analyze social issues and problems for social development.

P05 : CONDUCT INVESTIGATION OF COMPLEX PROBLEMS:

Investigate the complex research problems in field study through a sensible observation power using scientific method for analysis and interpretation of data.

P06 : COMMUNICATION :

Communicate effectively while interacting with social people at the time of field study activities as well as report writing and affective representation.

P07 : INDIVIDUAL AND TEAM WORK :

Perform effectively as an individual and as a group leader in diverse team in multi-disciplinary setting.

P08 : ETHICS :

Understand ethical principles and responsibilities by learning about institutions, folk ways, mores, culture, social control, social policy, society and culture of India.

P09 : FUTURE EMPLOYABILITY :

Enhance and adopt new skills for future employability in teaching and research through seminars, project works and internships.

P10 : COMPETENCY :

Successfully compete at national and international levels competitive examinations.

SOCIAL ANTROPOLOGY DEPARTMENT

SPECIFIC OUTCOMES

PS01 : Develop the ability to demonstrate anthropological understandings of phenomena For example how individual bio graphics are shaped by social structures, institutions, Cultural practices and multiple axes of difference and inequality.

PS02 : Provide ability to apply anthropological concepts and theories to the tribal world and Ultimately their everyday lives.

PS03 : Understand the concepts and contributions of social anthropologists about the Comparative study of the ways in which people live in different social and cultural Settings across the globe.

PS04 : Build social consciousness and skills to implement sophisticated, appropriate and Workable solutions to address complex global problems.

PS05 : Examine major elements of global systems to evaluate solutions to complex problems

PS06 : Recognize the implications of social change at multiple levels of oppression and Empowerment

PS07 : Critically evaluate explanations of human behaviours, social phenomena, processes Locally and globally.

PS08 : Identify and access the assumptions underlying different theoretical perspectives.

PS09 : Evaluate and respond to inequalities and emerge from a global integrated and Unequal world.

PS10 : Compare contrast how anthropology differ from and similar to other social sciences And their areas of interdependence.

COURSE OUTCOMES

SEMESTER : I

COURSE CODE : SA 1-1-105

COURSE NAME : P- I INTRODUCTION TO SOCIO-CULTURAL ANTROPOLOGY

COURSE OUTCOMES :

On completion of the syllabus students will be able to

CO1 : To provide social grounding in the fundamentals of the social anthropology.

CO2 : To understand the basic concepts in social anthropology and their fundamental interrelations.

C03 : Relate social anthropology with other social sciences and examine the characteristics of human society.

C04 : Classify social groups, institutions, association and discuss its importance in society.

C05 : Analyse different elements of culture in a scientific way and examine their changes and emerging trends.

C06 : Remember how values and customs regulate society since past to present.

COURSE OUTCOMES

SEMESTER : II

COURSE CODE : SA 1-2-105

COURSE NAME : P- Ⅱ SOCIAL INSTITUTIONS

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Realise the characteristics, forms and functions of marriage and get insight into way of acquiring mate in primitive societies

C02 : Explain the basic ideas of incest through the lense of social anthropology.

C03 : Discuss the types and functions of family and examine its universality.

C04 : Demonstrate how industrialization, urbanization, education and modernization impact on Indian joint family.

C05 : Analyze the degree of kinship and kinship terminology.

C06 : Get awareness about kinship groups and acquire knowledge about kinship application.

COURSE OUTCOMES

SEMESTER : III

COURSE CODE : SA 1-3-105

COURSE NAME : P-III TRIBAL ECONOMY, POLITY & RELIGION

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Understand the meaning and definition of economic organization among tribal societies.

C02 : Analyse different forms of tribal economy and identify various ways by which goods and services are circulated.

C03 : Explain about Tribal polity and Tribal Welfare measures.

C04 : Examine the Cultural change and applications of Anthropological knowledge.

C05 : Describe the theories of origin of religion and functions of religion.

C06 : Understand the types of magic, relation and differences between magic, religion and science.

COURSE OUTCOMES

SEMESTER : IV

COURSE CODE : SA 1-4-105 A

COURSE NAME : P-IV PEOPLES AND CULTURES OF INDIA

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Realise India as cultural religion in terms of language and socio-economic conditions.

C02 : Explain the unity and diversity of Indian society.

C03 : Discuss the characteristics and distribution of tribes in India.

C04 : Demonstrate the lifestyle of tribal people like chenchus, Gonds and Todas.

C05 : Analyse the problems of tribal people and Tribal Movements.

C06 : Get awareness about theories of caste origin, jajmani system, Dalits and their development. Acquire knowledge about caste mobility and changes in Indian villages after independence.

COURSE OUTCOMES

SEMESTER : IV

COURSE CODE : SA 1-4-105B

COURSE NAME : P-V THEORIES IN SOCIAL/CULTURAL ANTHROPOLOGY.

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Understand the aspects of culture, dynamics of culture

C02 : Examine the contributions of anthroplogists such as Morgan, Leslie white, Julian steward, Marx and Engles in the process of cultural evolution.

C03 : Gain insight into the diffusion of culture through British and American school, structuralism and functionalism.

C04 : Analyse and discuss about the importance of field work in anthropology.

C05 : Elaborate contributions of EB Tylor, B Malinowski , M N Srinivas, L H Morgan , D N Majumdar.

C06 : Describe the anthropological theory analyse its feature and illustrate the role of theory in building anthropological knowledge.

COURSE OUTCOMES

SEMESTER : V - SKILL ENHANCEMENT COURSES
COURSE CODE : 6A (Under CBCS w.e.f 2022-23)
COURSE NAME : APPLIED ANTHROPOLOGY.

COURSE OUTCOMES :
On completion of the syllabus students will be able to

C01 : Explain the meaning, scope of Applied Anthropology and its relationship with Action Anthropology.
C02 : Understand the applications of Anthropology in bringing social and cultural change.
C03 : Analyse the agents and promoters of change.1
C04 : Investigate the social, cultural and psychological barriers to change.
C05 : Understand the applications of Anthropology in agriculture, primary education, public health and environment.

COURSE OUTCOMES

SEMESTER : V - SKILL ENHANCEMENT COURSES

COURSE CODE : 7A (Under CBCS w.e.f 2022-23)

COURSE NAME : ACTION ANTHROPOLOGY.

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Explain the meaning, scope of Action Anthropology and its relationship with Applied Anthropology.

C02 : Relate Action Anthropologist and Field work.

C03 : Understand the Action Anthropologist as an agent of change.

C04 : Establishment of rapport and collection of data.

C05 : Identification of barriers and promoters of change and development.

COURSE OUTCOMES

SEMESTER : V - SKILL ENHANCEMENT COURSES

COURSE CODE : 6B (Under CBCS w.e.f 2022-23)

COURSE NAME : METHODS OF DATA COLLECTION.

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Understand the importance of collection of data for human development.

C02 : Understand various methods of data collection, their merits and demerits.

C03 : Use of Survey method National, Sample survey, Census generations and Enumeration.

C04 : Understand analysis and Tabulation of data.

COURSE OUTCOMES

SEMESTER : V - SKILL ENHANCEMENT COURSES

COURSE CODE : 7B (Under CBCS w.e.f 2022-23)

COURSE NAME : ANTHROPOLIGICAL FIELD WORK.

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Understand the importance of field work tradition in Anthropology.

C02 : Describing the research tools and techniques and methods of data collection observation, Geneology, Case study, interview schedule and questionnaire.

C03 : Explaining the Ethical values in field work.

C04 : Discussing the establishment of Rapport.

COURSE OUTCOMES

SEMESTER : V - SKILL ENHANCEMENT COURSES

COURSE CODE : 6C (Under CBCS w.e.f 2022-23)

COURSE NAME : DEVELOPMENT ANTHROPOLLOGY

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Understand the concepts of Development and sustainable development.

C02 : Know the indicators of Development.

C03 : Understand the importance of peoples' participation in development.

C04 : Identify the social-cultural variations in Rural Development.

COURSE OUTCOMES

SEMESTER : V - SKILL ENHANCEMENT COURSES

COURSE CODE : 7C (Under CBCS w.e.f 2022-23)

COURSE NAME : PARTICIPATORY DEVELOPMENT

COURSE OUTCOMES :

On completion of the syllabus students will be able to

C01 : Understand the concept of participatory development.

C02 : Understand the need for peoples' participation in Rural development.

C03 : Emphasis on participatory Rural Appraisal and its use.

C04 : Discussing National and International Development Agencies in Participatory development.

S.P.W. Degree & P.G. College, Tirupati

Department of Telugu

Telugu Program out Comes – 2022-2023

Literature reflects contemporary society. The readers get aware of his/her surroundings to adapt it and prosper. There is possibility to revolutionize the society by establishing Dharma and uprooting Adharma through literature. An education expert William Delancy says "The study of literature has civilizing effect on people. There is an extreme danger of education being used primarily to turn out engineers, lawyers, doctors, accountants, business men and business women and other professionals who are lacking in human feelings and who have been described as educated barbarians" without literature.

Po -1: Apply the Knowledge of Telugu to use problem solving abilities in domain specific writings acquired through task-based learning.

Po -2: Ability to take an informed position regarding various social and ethical issues such as discrimination, exclusions, marginalization of various genders, castes, ethno-religious communities and social groups.

Po -3: Ability to use strategic competence to complete a task or attain a communicative goal by Integrating declarative, procedural and conditional knowledge.

Po -4: Ability to use various apps and tools for completing projects.

Po -5: Capacity to adopt and generate awareness of environment friendly practices.

Po -6: Apply the concept of love and relations

Po -7: Understand the ethics in everyday life and analyze the behavior of day to day life.

Po -8: Communication Skills: Capable of appreciating literary texts in Telugu.

Po -9: Capable of planning, mapping, identifying and mobilising resources to complete projects by demonstrating skills in organizing, delegating tasks amongst fellow group members.

Po -10: Life Long Learning: Ability to enhance various specialized skills of professional domains, such as Creative Writing, Translation, Language Teaching, Official Writing, Advertisement, Script Writing,Journalistic Writing etc. using the knowledge of the language.

Po -11: Enhance and adopt new skills for Telugu modern Prose and its critics

Po -12: Capacity to undertake professional assignments in a number of fields requiring advance knowledge of language such as, translation, interpretation, creative writing, official writing, language teaching at the college and equivalent levels, publishing, the print and electronic media, journalistic writings, script writing, film criticism, manuscriptology.

Telugu Program Specific out Comes

PSO-1: Empower the knowledge of Telugu Language and Literature

PSO-2: Improve writing skills like short stories, novels, Dramas & features.

SPW Degree & PG College, TTD, Tirupati, Department of TELUGU

Course Outcomes – 2022-2023

Name of the Program: I & II Years B.A, B.Sc, B.Com, Second Language Telugu

On successful completion of this course, student will be able to

Semester	Course Name	Course Outcomes
I	**Paper I-** OLD POETRY AND GRAMMAR Unit I: Raajaneethi- Nannaiah Unit II: Kuchelo Pakhyanam Unit III: Dowmya Dharmopadesham- Errana Unit IV: Palnati Bebbuli-Srinadhudu Unit V: Seethaa Ravana Samvaadam- Molla Unit VI: Grammer- Samdhulu, Samaasaalu, Chandhassu, Alakaaraalu	i. Students understand about the Ancient Telugu Literature. ii. Understand the major social, religious & political movements of each period iii. Establish the continuity of ideas from the ancient to ourselves iv. To understand the great ideas conveyed in Nannaiah & Thikkana nd poetry and appreciate the rhetorical and poetic art through which those ideas are conveyed. v. Students learn about Division of words, phrases, formation of sentences and the structure of the language.
II	**Paper II** MODERN Literature Unit I: 1. Aadhunika Kavithvam 2. Kondaveedu-Duvuri Rami Reddy 3 Maathru Sangeetham-Anisetti Subba Rao 4 Thaathko Noolupogu- Bandaaru Prasada Murthi Unit II: Kathanika	i. Students will get awareness of the essential of poetry ii. Students will recognize poetry from a veracity of culture, Language and historic periods iii. Students will understand and appreciate poetry as a literary form iv. Students will analyze the various elements of short stories v. Students will be can identify the style of the writers

	5. Telugu Kathnika 6. Bhayam-Kalipatnam Rama Rao 7. Swedam Khareedu- Rentala Nageshwara Rao Unit III: Novel 8. Telugu Novel-Introduction 9. Radhachakraalu-Maheedhar Rammohan Rao 10. Radhachakraalu-Sameeksha Unit IV: Naatakam 11. Telugu Naatakam - Introduction 12. Yakshagaanam –M.V.S.Harinadha Rao 13. Apuroopa Kalaaroopala Vidvamsha Drushyam Yakshagaanam- Kandimalla Samba Shiva Rao Unit V: Vimarsha – Dr. Nagabhirava Adinarayana 14. Telugu Sahithya Vimarsha- Introduction 15. Vimarsha Swaroopa Swabhaavaalu, Uttama Vimarshakudi Lakshanaalu, Vimarsha Bhedaalu	vi. Students will understand the early Poetry and picaresque novel vii. Students will understand the perspective of literary history and realistic novel viii. Students will get to know the movement of drama ix. Introduce to the basics of Criticism x. Helps to write a critical appreciation
III	**Paper III-** Creative Writing Unit I: Vyaktheekarana Naipunyam	i. Investigate into the structure of their mother tongue ii. Apply knowledge to the language other than those known by the graduates

	1. Bhasha Pradhamikamshaalu 2. Varnam –Padam-Vakyam 3. Bhasha Nirmanam lo Varnam –Padam-Vakyam-Pradhanyatha Unit II: Srujanathmaka Rachan 4.Kavitha Rachana 5.Katharachana 6.Vyasa Rachana Unit III: Anuvada Rachana 7. Anuvadam – nirvachanam 8. Anuvadam- Samasyalu 9. Abhyasam Unit IV: Maadhyamaalaku Rachana -1 10. Mudrana Madhyamam 11. Vividharakaala Pathrikalu-Parisheelana 12. Pathrikaa Rachana Unit V: Maadhyamaalaku Rachana -2 13. Prasaara Maadhyamaalu 14. Shravana Maadhyamaalu 15. Drushya Madhyamaalu	i. Critically evaluate the current theories in languages ii. Identify the Literary terms iii. Recognize the features lyric poetry iv. Relates the poem to the real life v. The ability to carry out Journalistic research and interviews vi. The ability to prepare content for news media outlets