S.D.M PG GIRLS' COLLEGE

BHILWARA-311001 (Raj.)

PROGRAMME OUTCOMES

PROGRAMME SPECIFIC OUTCOMES

COURSE OUTCOMES

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S.D.M PG GIRLS' COLLEGE,BHILWARA

The following POs, PSOs and COs are based on the syllabi set by the MDS University, Ajmer-

1. Programme Specific Outcomes of English (UG)

PSO 1 - Student is able to understand the various periods of Literature. They also learn the use of language and its pronunciation patterns.

PSO 2 - To identify different genres.

PSO 3 - Students are able to select different literary texts like plays, poems, prose, short stories and novels.

PSO 4 - To enable the students to understand literary terms like sonnet, lyric, paradox, ode etc.

PSO 5 - Student is able to understand literature in connection with socio-cultural milieu.

2. Programme Specific Outcomes of Economics (UG)

Economics is the evergreen subject which has high demand at both national and International level because of its utility in our day to day life

PSO 1 – To develop understanding of consumer behavior and factors of market dynamics.

PSO 2 – To develop comprehensive view of Indian Economist towards idea of economics.

PSO 3 – To develop understanding of general theories and major concepts of macro economics.

PSO 4 – To develop understanding of problem areas of Indian Economy,

an overview of Indian Economy and factors determining Indian economy.

PSO 5 – To develop understanding of money economy, role of bank, monetary & fiscal policies in a money market system.

PSO 6 – Understanding of co-relation between techniques of statistics and concepts of working economy thereby qualifying and analyzingeconomic behavior for future predictions.

Programme Specific Outcomes of Geography (UG)

The sample program outcomes of the different papers offered are presented below. After completion of the course the student will be able to:

PSO1- To understand knowledge of physical geography. They will gather knowledge about the fundamental concepts of Geography andwill have a general understanding about the geomorphologic and geotectonic process and formation. Imbibing knowledge, skills and holistic understanding of the Earth, atmosphere, oceans and the planet through analysis of landform development; crustal mobility andtectonics.

PSO 2 - To understand knowledge about the physical, social, cultural aspects of Rajasthan

PSO 3 - Gain knowledge about major themes of human Geography. Acquire knowledge on the history and evolution of humans. Understand the approaches and processes of Human Geography as well as the diverse patterns of habitatand adaptations.

PSO 4 - Understand the concept of economic activity, factors affecting location of economic activity. Gain knowledge about different types of

Economic activities.

PSO 5 - Know about the physical, social, cultural aspects of all continents.

PSO 6 - Know about the physical, social, cultural aspects of India.

PSO 7 - Comprehend the concept of scales and representation of data through cartograms. Learn the usages of survey instruments. Develop anidea about different types of thematic mapping techniques and projections.

3. Programme Specific Outcomes of Hindi Literature (UG)

PSO 1 – To Understand the origin and development of Hindi Language & Literature

PSO 2 – To Understand poetry from the beginning with reference to Adikaal and Bhakti movment including the texts of Sant,Sufi,Krishna and Ramdhara poets.

PSO 3 – To Understand the poetry of the Reetikaal (Specially Ritibaddh,Ritisiddh and Ritisiddh)

PSO 4 - To Understand the origin and development of the modern One Act Play and Drama . (Specially with reference to Raktdhwaj)

PSO 5 - To Understand the modern poetry. (Specially from Maithilisharan Gupt to Naresh Mehta)

PSO 6 - To Understand the Origin and development of Hindi novel with reference to Jyon mehandi ke rang & To Understand the Origin and development of Hindi Story with reference to nineStories of modern writers.

4. Programme Specific Outcomes of History (UG)

PSO 1 – Understand the Foundation of Indian Culture throughout the ages.

PSO 2 – Learn about Ancient Indian History from the stone age to 1200 AD along with socio-economic and cultural aspects.

PSO 3 – Understand the political, social, economic aspects of Medieval India along with its culture.

PSO 4 – Able to understand the transformation of Rajasthan from the earliest times to 1949 A.D.

PSO 5 – Gain knowledge of Indian freedom movement under various leaders, Gandhian era and impact of British policies on India.

PSO 6 – Understand the major events of Modern World History.

Programme Specific Outcomes of Political Science (UG)

PSO 1 - Students can understand the basics of Political theory. They can differentiate between traditional and modern Political theory .Modern Political theory concept like power, political modernization, political culture and political system which will be useful to them to understand basics of political science.

PSO 2 - Students can develop a comprehensive approach towards politics and political system by gaining knowledge about Ancient political thinkers.

PSO 3 - Students can develop a deep knowledge of Indian Government and politics by knowing Indian constitution and other aspects of Indian politics.

PSO 4 - The knowledge of comparative politics will be useful to students tounderstand other countries political system and process.

PSO 5 - The knowledge of international Relations will be helpful to

them to develop understanding of international Relations, international organizations, India's relationship with other countries, and other countries foreign policies.

PSO 6 - The knowledge of western political thoughts will develop a comprehensive and deep knowledge of political science concepts and theories.

5. Programme Specific Outcomes of Sanskrit (UG)

Students of undergraduate degree programs in Sanskrit at the time of graduation will be able to –

PSO 1 - Understand the basic grammar of Sanskrit as Sangya, Sandhi, Karak, namikprakaran and kriyapad, Roop Siddhi and vyakhya.

PSO 2 - Understood the translation - Hindi to Sanskrit and Sanskrit to Hindi.

PSO3 - Understood the Vyakhya of slokas of Raghuvansham, Abhigyanshakuntalam, hitopadesh, swapnavasavadattam.

PSO 4 - Knew about the importance of Vedas Upanishad and Bhagavad Gita.

PSO 5 - Understood about the principal of lokjivan Lokvyavhar and value of life.

PSO 6 -Knew about the ancient Indian culture as varnashramavavastha, Sanskar, purusharthchatushtaya and moral cultural values.

PSO 7 - Understood the various philosophical theories and differencesbetween them.

6. Programme Specific Outcomes of Sociology (UG)

PSO 1 - Principals of sociology.

PSO 2- Indian Society .

PSO 3 – Social Research methods.

PSO 4 – Indian Society : Issues and Problems.

PSO 5 – Foundation of Sociological Thought

PSO 6 - Social Anthropology

1. Programme Specific Outcomes of Botany (UG)

PSO 1 - *Analytic and rational thinking*: knowledge of biology enables students to think Analytic way about scientific world and do some innovations.

PSO 2 - *Effective communication*: In the course students learn about systematic and evolution, diversity in flora by the knowledge they can explore new species of plants help other researchers to evaluate the species.

PSO 3 - *Environment and sustainability:* Students know the meaning of sustainable development so they become aware about environment and adopt the strategy for protection and conservation of Nature.

PSO 4 - *Self-directed and lifelong learning* : practical of various papers like anatomy and morphology make students Curious to explore and develop research aptitude and the learning with practice enable the students that whatever they learn it's remain long lasting.

PSO 5 - The students completing the course is able to identify various macro as well microscopic life forms, design, execute the experiment related to basic science including biotechnology evolution,

recombination, molecular biology, genetic. Students are formalized with use of bio information and statisticaltools.

PSO 6 – Students will be aware of different plant diseases, their causal organisms and their preventions.

Programme Specific Outcomes of Chemistry (UG)

PSO 1 – Student may be understand about the ionic bonding and covalent bonding, important compounds of s and p block elements, noble gases chemistry. Chemistry of elements of first secondand third transition series. Properties of lanthanides and actinides series. Understanding about the concept of acid base and non-aqueous solvents. Learn about the coordination complex compounds and metal ligand bonding and their properties. Student may be able to understand bioinorganic chemistry, inorganic polymers and their physical and chemical properties.

PSO 2 - Understand about type of organic compound, organic reactions and their mechanism, stereochemistry of organic compounds.Understand preparation and properties of various organic compoundslike alkane cycloalkane alkene cycloalkenesdienes and alkynes alkylhalides aromatic compounds and aryl halides alcohol phenol and ethers epoxide aldehydes ketones and carboxylic acid acid derivative and various nitro compounds like nitroalkanesnitroarenes amines diazonium salt.

PSO 3 – Students will be able to define structure of organic compound by using UV IR NMR spectroscopy. Understand organometalliccompounds organic synthesis via enolates heterocyclic compounds and various bio organic compounds like carbohydrate amino acid

protein nucleic acid fats and oils. Learn about detergent synthetic polymers and synthetic dyes.

PSO 4 – Student will be able to define the basic difference of gaseous state liquid state solid state and colloidal state of matter and their chemical kinetics thermodynamics chemical equilibrium phase equilibrium electrochemistry. Mechanism of nuclear chemistry,quantum mechanics of photochemistry, and solutions and colligative properties.

PSO 5 - Understand practically qualitative analysis of inorganic mixer and organic compounds. Physical techniques like MP, BP of the organic compound and their recrystallization and sublimation properties. Understand quantitative analysis by volumetric and gravimetric method experiments and determine viscosity and surface tension of solution.

2 Programme Specific Outcomes of Physics (UG)

PSO 1 - Students know about frame of references and Galilean transformations. Coroilis force and its application. Students understand special theory of relativity and length contraction. Students gain knowledge about system of particles, energy and momentum conservation laws, rigid body motion and moment of inertia, elastic properties of matter.

PSO 2 - Students come across with simple harmonic oscillations, simple and compound pendulum, damped harmonic oscillators. Students learn about transverse & longitudinal waves and their speed in a medium, difference between group velocity and phase velocity.

PSO 3 - Students learn about scalars and vectors, divergence & curl of a

vector field, Gauss's divergence theorem, stokes theorem, electrostatic field, Poisson's & Laplace's equations in Cartesian, cylindrical and spherical polar coordinates.

PSO 4 - Distribution of molecular velocities and applications of Maxwell's distribution function such as average speed, RMS speed and most probable speed. Students learn about Clausius- clapeyronto study the effect of pressure on melting point and boiling point. Maxwell's relations are important ones by which one can draw the expression for Joule-Thomson expansion at constant Enthalpy.

PSO 5 - Students learn about circuit analysis (Kirchhoff's laws) and four terminal networks and various theorems which are useful for circuit analysis. Students study about rectifiers such as half wave, full wave, and bridge rectifiers and about filters. Configurations of transistor such as CE, CB, and CC are important ones. Student gain the basic knowledge about Logic gates such as AND, OR, NOT, NAND, NOR etc.

PSO 6 - Students study about laws of reflection and refraction, lens combinations etc. They learn what the aberration in image is ? The phenomenon Interference of light is an important one in optics. Students gain the knowledge about laser, what is the spontaneous and stimulated emission, Einstein's A andB coefficients, population inversion etc.

PSO 7 – Students learn about black body radiation, quantum of energy and Planck Quantum hypothesis. They learn about the ejection of phot electron from a metal surface at a particular frequency (photoelectric effect), uncertainty principle, time dependent and time independent Schrödinger equations. They also learn about simple harmonic oscillator.

PSO 8 - Rutherford scattering give the indication of the existence of nucleus. Students learn about various properties of nuclei, nuclear fission and fusion, nuclear forces etc. They also learn about the basics ofthe classification of elementary particles.

PSO9-Students learn about the bonding in solids, crystal structure, diffraction, band theory. They also gain the knowledge about energy band structures in semiconductors, conductors and insulators. They gain the basics of superconductivity which is the phenomenon of very low temperature (nearly 0K).

3 Programme Specific Outcomes of Zoology (UG)

PSO 1 - To understand the diversity of animals and specimen type of invertebrate and the evolution of organism

PSO 2 - To understand the basic idea of cell, cell organelle and nucleus and to know about Protein, genome, genetic code syndrome etc.

PSO 3 - To understand the basic concept of embryology such as gametogesis, spermatogenesis, fertilization stem cell regeneration xenobiotic.

PSO 4 - To understand the structure and function of all type of invertebrates from Protozoa to echinodermata and with the other phylum

PSO 5 - To understand the physiology such as the digestion, circulation excretion, absorption endocrine gland, and the biochemistry such as protein Carbohydrate and lipids, caban skeleton for an organism

PSO 6 - To understand immunology microbiology and biotechnology. The basic idea of antigen antibiotic and antigen, antibody reaction, and

mechanism. The basic idea about internal structure of Gram Positive and negative which are harmful and useful bacteria. In Biotechnology to understand application, uses, genetic engineering genetic recombinant , carrier vector dairy products etc.

PSO 7 - To understand the development, structure and function of organs of all the type of vertebrate animals. Basic knowledge about parental care migration and development of fins and wings

PSO 8 - To understand the environment and Ecology ecosystem, succession, urbanization and different type of pollution. To know the classification of all classes of chordates vertebrate and lower chordates. Ecology experiment such as water and soil analysis and some exercises such as graphs histograms, mean mode median, SD and SE.

PSO 9 - To understand about the applied zoology such as different type of culture and the economic importance of various invertebrate concepts of behaviour techniques of behaviour and social of animals. Applications, uses and different type of exercise of bio statistics.

PSO 10 - To understand the basic knowledge about microscope, reagents, stains and to know about all the invertebrate type specimen according to syllabus and to study the genetic exercise, mitosis and development of frog and chick

PSO 11 - Demonstration of larval stages and internal body parts of the invertebrate animals. The knowledge about culture medium and identification of Gram Positive and Gram Negative bacteria haemoglobin estimation and food test etc.

4 Programme Specific Outcomes Commerce (UG)

PSO-1 Economic environment in India ,Economic planning population growth new population policy unemployment poverty disparity of income and wealth in India self-employment skill development human resources and economic development industries agriculture land reforms foreign trade in India export import policy, investment of foreign capital in India role of multinational corporations economic of Rajasthan basic characteristics of economic of Rajasthan

PSO-2 Business Economics, roll concept economic concepts of Kautilya arthshastra economic law static and dynamic economics micro macro atomic models consumption law economic problems and functions law of demand elasticity relationship with revenue in different curve consumer equilibrium income effect price effect derivation of demand curve law of returns ISO product curve returns to sale capital formation efficiency of labour importance of cost in decision making commodity pricing change in demand and supply I and their effect on equilibrium price time element in price determination market definition and classification price output imperfect competition discriminating Monopoly and only go poly marginal productivity theory theories of rent wages interest and profit national income etc.

PSO-3 Cost accountaing– nature, maetod, technique, installation of costing system ,audit, accounting for material, labour ,overheads, unit costing, job /batch / contract costing, operating process costing,

Integral, nonintegral system reconciliation of cost and financialaccounts.

PSO-4 - Business Statistics, application collection of data, classification, partition, value dispersion, measurement of Central tendency analysis of bivariate data linear regression correlation index number problems in constructing index number consumer price index analysis of time series decomposition average arithmetic progression geometric progression harmonic progression statistical quality control interpellation binomial method etc.

PSO-5Business Management : management meaning nature principle and importance of management management thoughts objectives strategic management coordination planning organisation controlling modern techniques of communication leadership motivation management of change resistance to change origins of management in changing in a changing environment

PSO-6 Business Laws - Indian contract act 1872, sales of goods act 1930, consumer protection act 1986, negotiable instrument act 1881, partnership act 1932.

PSO-7- Financial Accounting and Decision making, financialaccounting and decision making department and branch accounts accounting for investment in the stock market transaction insurance change claims marginal costing value added statement economic value added market value added change your product mix pricing break and even analysis exploring New Market shut down decisions budgeting for profit planning and control meaning of budget types of budgets standard costing and variance analysis meaning of standard cost and standard costing activity

based costing next business management corporate personality e kind of companies promotion and incorporation of company e memorandum of association articles of association prospectus shares share capital member transformation transfer transmission debentures and borrowing power directors managing director whole time director appointment rights liabilities remuneration company investigation prevention operation, mismanagement company meeting kinds quorum notice agenda no motion resolution methods of voting winding up kinds and legal provisions.

PSO-8- Corporate Accounting, advance study of issue four feature reissue of shares redemption of preference shares valuation of goodwill and share final accounts including computation an agerial remuneration disposer mprofit accounting for amalgamation of companies as per Indian accounting standard 14 liquidation of companies, accounting for internal reconstruction, accounts of holding and subsidiary companies in India, consolidated balance sheet profit and loss account.

PSO-9 -Fundamentals of entrepreneurship**,** emergence of entrepreneurial class, 3 years of entrepreneurship, qualities, promotion of a venture opportunities, analysis, interpret your behavior innovation, entrepreneurs psycho theories social responsibilities, entrepreneurship development programmes, EDP role of government organizing EDP, role ofinterpreter, augment and meeting local demands role in export promotion and import substitution foreign earnings augmenting and meeting local demands.

PSO-10-Company Laws – meaning definition types promotion,

memorandum of association, articles , prospectus, share capital members debenture borrowing power, director managing director company investigation company meeting method of voting winding up legal provision

PSO-11-Financial management, management meaning, scope, importance, limitations, ratio analysis, liquidity funds, flow analysis cost of capital cost of debts effect on profit financial planning and forecasting capital structure dividend policies Walter and gordon's model cost-volume-profit analysis.

PSO12- Banking law and practice in India banking legislation in India reserve Bank of India act 1934 act 1949 banking companies 1970 definition of term banker and customer termination of relationship types of accounts and their operations types of customers negotiable instruments concept elements types of check bill promissory notes promissory notes crossing endorsement presentation paying and collecting rights duties protection and precautions this owner investment and lending of bank funds principle of investment meaning characteristic nature personal circular check traveller check procedure of opening a letter of credit making payments of letters of credit fraud and its prevention.

PSO-13 - Income tax law and Accounts, introduction and definition, residential status incidence of tax exempted, income, taxable income, under the head of salaries income from house property, income from business and profession computation of income from capital game

income from other services aggregation of clubbing of income set off and carry forward of losses exempted income deduction from gross total income computation of total income and tax liability of individuals computation of total income and tax liability of Hindu undivided family provisions regarding deduction of tax at source and advance payment of tax assessment procedure.

PSO-14 - Taxation - VAT and value of supply of goods and services into input tax credit transitional provisions registrations under VAT act feeling maintenance of accounts and record composition job work and procedure various exemptions demand and discovery rule of custom in international trade important terms and definitions under customs act 1962 assessable value baggage bill of entity durable goods duty exporterfor and going vessels aircraft goods bill of lading export manifest letter of credit import of goods free import import of cargo import of personal baggage import of tax liability and valuation of goods computation of custom duty appeals and revisions nature and

PSO-15- Principles of Marketing, Nature and scope of marketing marketing concepts traditional and modern selling versus marketing marketing mix marketing environment concept of product brand name trademark product life cycle concept importance of price and marketing mix factors affecting price of a product or service discounts and rebate and cosumer behaviour market segmentation distribution channels methods of promotion characteristics of an effective advertisement personal selling publicity sales promotion and public relations physical

distribution of goods transportation warehousing inventory control order processing.

PSO-16- Fundamentals of insurance introduction to insurance purpose and need of insurance insurance as a social security tool principle of life insurance Marine fire medical general insurance contract of various kind insurable interest fundamental of agency law distribution of an agent agents regulation agents remuneration procedure for becoming as agent cancellation of licence function of agent company profile organisation set up of a company e promotion strategy market share important activities structure product product pricing actuarial aspect distribution channel international marketing nature definition scope product planning for international market international pricing international distribution export policy and practices in India exim policy export finance pricing documentation produce assistance and incentives.

PSO-17 - Project planning and budgetary control project life cycle . Project feasibility analysis market technical financial business forecasting project budgeting methods payback AR npv I are zero based budgeting project layout methods project organisation structure marginal cost technique for project decision role of level and financial decision project financing use of networking techniques in project planning prt CPM budgetary control budgetary control versus standard costing material variances and labour variances

PSO-18 - Banking and financial system money meaning functional role type of money monetary standard methods of note issue alternative

measures to money supply in India that different components financial systems meaning credit creation by bank credit creation process determination of money supply and total bank credit value of money quantity theory of money fisher Cambridge and cancer approach international financial institution and its affiliated international monetary fund international Bank for reconstruction and development IFC ADB problems between the government and commercial sector intersectoral and international problems operation of conflicting pressures before and after Bank nationalisation in 1969 banking and financial reforms in India RBI function credit policy in present setting and limitations.

Course Outcomes

Course Outcomes of Economics (UG)

CO 1 – This course capacitates students to analyze consumer behavior in a specific market form.

CO 2 – Students will develop appreciation about principles of economics from the perspective of Indian culture and value system.

CO 3 – This course capacitates student to identify factors that govern market forces amid its behavior in Indian context.

CO 4 – Students will be able to develop understanding about role of banking, government in determining dynamics of a nation's economy.

CO 5 – Students will develop skill regarding quantifying economic behavior and using methods of statistics to predict economic behaviour.

CO 6 –Student will be able to understand various determinants of economy of Rajasthan, its basic issue areas and role of government in economic development.

Course Outcomes of English (UG)

CO 1 – To understand the origin and development of English language and literature.

CO 2 – To understand the beginning of the English Literature with reference to Chaucer.

CO 3 – To understand renaissance with reference to Shakespeare and John Milton.

CO 4 – To understand the term metaphysical poetry in connection with

John Donne.

CO 5 – To understand the romantic literature, Victorian literature, Modern literature, Neo-classical literature.

CO 6 – To understand the poems as par syllabi like Pope, Dryden, Wordsworth, Shelley, Keats, Tennyson.

Course Outcomes of Geography (UG)

CO 1. – Students will be able to explain the various theories of mountain building, theories of continental drift, plate tectonics and erosion cycle etc.

CO 2 – Students will be able to describe about types of folds and faults and earthquakes,volcanoes and associated landforms.

CO 3 – This course will enhance students knowledge about temperature, pressure, humidity and rainfall, approaches and processes of Human Geography as well as the diverse patterns of habitat and adaptations.

CO 4 – Students will able to define the major themes of human geography and evolution of human, assess the significance of Economic Geography, analyze the factors of location of agriculture and industries.

CO 5 – Students can describe the physical, social, cultural aspects of Rajasthan. They can also explain the concept of region, its delimitation methods and types of region.

Course Outcomes of Hindi Literature

CO 1 – Able to describe the history of various aspects of Hindi literature.

CO 2 – Able to enumerate the origin and progression of Hindi language.

CO 3– Able to express the general introduction of the poets and their compositions of the ancient, reetikaalin and modern times.

CO 4 - Able to describe the elements of writing of novels and stories, whileproviding an introduction of the writers.

CO 5 – Able to give a general introduction of the compositions of essays,drama and one act play.

CO 6 – Student is eligible for appearing in different competitions of various fields (administrative, subordinate, SSS,SI, etc.)

CO 7 – Student is eligible for different jobs in print & electronic media.

CO 8 – Student is eligible for higher education and different academic fields in schools (B.Ed, B.PEd).

CO 9 – Student is eligible for research degree in different universities.

CO 10 – Student is eligible for admission in legal degree.

CO 11 – Student is eligible for hindi officers' examination.

CO 12 – Student is eligible for different jobs in film line (song, script etc.)

Course Outcomes of History (UG)

CO 1 – Students are able to understand the foundation of Indian culture, its various rituals and enrich heritage, art and culture.

CO 2 – Students are able to acquire the knowledge of Ancient Indian History with special reference to Indus Civilazation, Vedic Civilization, different political dynasties such as Gupta, Kushanas, Maurayans, Chola, Chalukya etc.

CO 3 – Students are able to understand the Medieval Indian History of Sultanate and Mughal period.

CO 4 – Students have comprehensive understanding of History of Rajasthan such as major dynasties of Rajasthan, Prajamandal Movement and also cultural aspects like Rajput Paintings and Architecture.

CO 13 – Students are able to understand main features of Modern Indian History viz. British Land Revenue Settlements, the theory of drain of wealth, growth of communal politics in India and Gandhian Movements.

CO17 – Students will have understanding of modern world history with special reference to French Revolution, American Revolution, Unification of Germany and Italy, causes and consequences of II World War etc.

Course Outcomes of Political science (UG)

After completing the under graduate course in Political Science Students are enable to study politics through different approaches. They can find out where the power is existing in society. They can better understand the issues of liberty, equality, justice and

democracy. Students can examine the political dynamics of Indian Politics. They can easily understand the main features of Indian Constitution and structure of Indian Government. They can compare Indian Constitution with other constitution of the world. They can have knowledge of the political ideas of eminent political philosophers from Plato to Marx. They can analyze the contemporary international political events.

After doing graduation with the subject of Political Science, students are enable to give civil services examination. Students prefer this subject due to the maximum coverage of the syllabus of civil service examinations. Besides civil services students can make opportunity in media field with the subject of Political Science. Knowledge of politics and political system enriched them in media services. Psephology is another better field of research and career in Political Science. L.L.B., police, subordinate state services, teacher are also options for the students of Political Science. But above all, the study of Political Science can give a better leadership to the society.

Course Outcomes of Sanskrit (UG)

CO 1 – Students will be able to describe the introduction of Indian culture and its manyaspects, introduction of the basic sanskrit grammar.

CO 2 – Student will do the general study of the sanskrit text and understand history of Sanskrit literature and its classification.

CO 3 – Students can describe the Lakshan of Chand and Alankar and give examples and can also do classification and characteristics of Bhartiya darshan.

CO 4 – Student will be able to do Vyakhya of neetishatakam Bhagwat Geetamanusmriti.

CO 5 – This course will enhance students translation skills - Hindi to Sanskrit, and Sanskrit to Hindi.

Course Outcomes (COs) of Sociology

CO1 – Students are able to describe the general values of Indian society.

CO 2 - Students are able to describe the role and status.

CO 3 - Students are able to describe the poverty in India.

CO 4 - Students are able to describe the socialization.

CO 5 - Students are able to describe the research method.

CO 6 - Students are able to describe the gender problem in India.

CO7- Scope In field of MBA,LLM, MSW, Demography, Tata School of Social Sciences etc.

Course Outcomes of Botany (UG)

CO 1 – Student will be able to understand molecular biology, cellbiology and microbiology.

CO 2 - Students learn about systematic and evolution, diversity in flora by the knowledge they can explore new species of plants help other researchers to evaluate the species

CO 3 - *Environment and sustainability:* Students know the impact of

men on environment and ecosystem, pollution and conservation, role of international organizations viz. IUCN, UNEP, UNESCO.

CO 4 - *Self-directed and lifelong learning* : practical of various papers like anatomy and morphology and plant physiology make students Curious to explore and develop research aptitude and the learning with practice enable the students that whatever they learn it's remain long lasting.

CO 5 - The students completing the course is able to identify various macro as well microscopic life forms, design, execute the experiment related to basic science including biotechnology evolution, recombination, molecular biology , genetic. Students are formalized with use of bio information and statisticaltools.

CO 6 – Students will be aware of different plant diseases, their causal organisms and their preventions. Students will be able to understand various principles and techniques of plant pathology.

CO 7 – Through seminars, students will enhance their presentation skills.

Course Outcomes of Chemistry (UG)

CO 1 – Student will be able to know about general chemistry, inorganic chemistry, organic chemistry, physical chemistry related thoughts and ideas and amplify in various area related to chemistry.

CO 2 – The practical related skills will be developed in the students by doing and learning methods.

CO 3 – Student will be able to get job in the chemical industry andresearch laboratories.

CO 4 – Student will be able to obtain jobs in government as well asprivate sector.

CO 5 – Student will be able to start their own industries related tochemistry and our daily needs.

Course Outcomes of Physics (UG)

CO 1 – Student will be able to know about various phenomenons of Physics.

CO 2 – The practical related skills will be developed in the students bydoing and learning methods.

CO 3 – Student will be able to get job in the electrical and mechanicalindustry and research laboratories.

CO 4 – Student will be able to obtain jobs in government as well asprivate sector.

CO 5 – Student will be able to start their own industries related to electronics and our daily needs.

Course Outcomes of UG course in Zoolog

CO1-After completion of this course students will attain graduate degreewhich will make him eligible for appearing in various competetive examsin public and private sectors.

CO 2 - The course will teach the students the practical aspects of Immunology,pathology and biotechnology.Which would make them aware about different contagious/non contagious diseases which inturn beneficial in community health management during Covid-19 likepandemic situations..

CO 3 - Study of systematics and animal taxonomy would enhance their knowledge of living world and association with the nature. This knowledge

help the students to become a responsible civilian having akeen knowledge of the nature and its constituents.

CO 4 - After completion of the course they as zoology students,shall able to use the principle's of Zoology and corelate them with the other subjects of science and humanities

CO 5 - The practical knowledge of economic zoology would develop their inerest in starting their own work as entrepreneur.

COURSE OUTCOME – B.Com - UG

CO 1 – Students able to opt for CA, CS

CO 2 – Students able to appear in different competitive examinations inbanking sector

CO 3- Students able to opt for administrative, subordinate servicesCO 4 – Students able to opt for Indian Economic Services

PO 1.Engineering Knowledge:

Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2. Problem Analysis:

Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO 3.Design/Development of Solutions:

Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate

consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4. Conduct Investigations of Complex Problems:

Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5. Modern Tool Usage:

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6. The Engineer and Society:

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7. Environment and Sustainability:

Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8.Ethics:

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9. Individual and Team Work:

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10. Communication:

Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11. Project Management and Finance:

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12. Life-long Learning:

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

TEACHING AND EXAMINATION SCHEME Bachelor of Computer Applications - I Year 2020-2021

Paper Name (Theory) bca-101 Cyber Security Technologies & Practices

bca-102 Computer Fundamentals

bca-103 Data Structure

bca-104 Programming in C

bca-105 Financial Accounting Software

bca-106 Multimedia Basics

Paper Name (Practical)

bca-107 Data Structure Lab

bca-108 C Programming Lab

bca-109 Multimedia& Financial Accounting Software

Bachelor of Computer Applications - II Year W.E.F. 2021 - 22 Paper Name (Theory)

bca-201 Software Engineering

bca-202 Python Programming

bca-203 Database Management Systems

bca-204 Java Programming

bca-205 C++ Programming for Object Oriented Systems

bca-206 Computer Graphics

Paper Name (Practical)

bca-207 MS Access&Python Programming

bca-208 Java Programming

bca-209 C++ Programming & Computer Graphics

Bachelor of Computer Applications - III Year Paper Name (Theory)

bca-301 Relational Database Management System

bca-302 JavaScript

bca-303 Computer Networks

bca-304 Programming in .NET with C#

bca-305 Internet Tools & Website Development

bca-306 Open Source Technology & Operating Systems

Paper Name (Practical)

bca-307 .NET Programming with C#

bca-308 Web Development, Java Script, PHP, MySQL)

bca-309 Oracle ,SQL Programming& Linux

bca-310 Project

Vision, Mission, PEO, PO, PSO & CO
Department of Biotechnology

VISION

- To produce the best human resource in the area of Biotechnology by imparting quality education and training to the students. Department visualizes the scholastic achievements of its students in order to fulfill the demand of food, fuel, fiber and medicines for ever-increasing global population in a sustainable manner.

MISSION

- To develop trained human resource in the field of biotechnology.
- To develop the Department as an internationally reputed center for research in biotechnology.
- To develop the Department as a resource centre for providing instrumentation and training facility to the researchers and students in the region.

Programme Educational Objectives

(PEOs) B.Sc. Biotechnology

Program:

*The Program Educational Objectives (PEOs) for the **B.Sc. Biotechnology** program describe accomplishments that graduates are expected to attain within two years after graduation*

PEO-1: To enable graduates to pursue research career in industry and academia by providing fundamental and practical knowledge in the field of Biotechnology.

PEO-2: To empower the students with analytical and research skills, enable them to critically analyze existing literature in an area of specialization and to nurture entrepreneurial endeavors.

PEO-3: To develop biotechnologists with professional ethics in order to address global and societal issues for sustainable development.

Programme Outcomes (POs)

The Graduates of **B.Sc. Biotechnology** will be able to:

PO-1: Bachelor of Science knowledge: Apply the knowledge of biotechnology, microbiology, biochemistry fundamentals, and bioinformatics to the solution of complex biological problems.

PO-2: Problem analysis: Identify, formulate, review research literature, and analyze complex biological problems reaching substantiated conclusions using various principles of biotechnology, bioinformatics, microbiology, biochemistry, cell and molecular biology sciences.

PO-3: Design/development of solutions: Design solutions for complex biological problems and design protocols or processes that meet the specified needs with appropriate consideration for the public health and safety, conservation of biodiversity, better understanding of the microorganisms, and using bioinformatics tools for finding solutions of various crippling human/plant diseases with ethical, societal, and environmental considerations.

PO-4: Conduct investigations of complex problems: Use the various protocols developed through extensive research-based knowledge and methods including design of experiments, analysis and interpretation of data, and provide valid and reproducible conclusions.

PO-5: Modern Molecular Biology and Bioinformatics tools usage: Develop new technologies, protocols, resources, using modern molecular biology, biotechnology and bioinformatics tools and apply it to solve complex human health problems, plant stress tolerance and conserve floral biodiversity of Himalayan region focusing on medicinally important plants with an understanding of the limitations of this region.

PO-6: Post Graduate Student and society: Apply the classic and modern biological theoretical and practical knowledge gained to address societal, health, microbial and plant biodiversity studies, safety, ethical and cultural issues and the consequent responsibilities relevant to the professional up- gradation of the student and society as a whole.

PO-7: Environment and sustainability: Understand the impact of Himalayan hot spot of biodiversity. The professional PG students will have a better understanding of societal and environmental concerns, and demonstrate their knowledge, and need for sustainable development.

PO-8: Ethics: Apply ethical principles established by different government agencies and commit to research ethics, responsibilities and norms to undertake their current and future research and development.

PO-9: Individual and team work: Be an independent thinker and researcher effectively as an individual, and as a member or leader of different teams, and in multidisciplinary research Institutions and Universities.

PO-10: Communication: Communicate effectively on complex

researchactivities with the scientific community and with society at large, as a scientist or a teacher, be well versed with scientific writing and write effective reports and design research projects, make effective presentations, and be able to defend it efficiently.

PO-11: Project management and finance: Write good research and development projects relevant to the needs of society and environment and attract extra mural funds for himself and his team in the Institute or University from various funding agencies and manage R&D projects effectively.

PO-12: Life-long learning: Apply the discipline, ethics and knowledge obtained to engage in independent and life-long learning in their respective fields of interest wherever they go for further higher studies or jobs.

Programme Specific Outcome (PSOs)

For B.Sc. Biotechnology program:

After the successful completion of B.Sc. Biotechnology program, thestudents will able to:

PSO-1: Have basic and advanced understanding of Biotechnology in its various domains including, health, nutrition, agriculture, biodiversity conservation, Biosafety etc.

PSO-2: Address research questions related to all the above mentioned domains through carrying out specific experiments.

PSO-3: Appear and successfully qualify the higher level examinations of various agencies like DBT(Department of Biotechnology), CSIR (Council of Scientific and Industrial Research), ARS (Agriculture Research Services), ICAR(Indian Council of Agriculture Research),and many more, so as to get

chance to do research from reputed institutes within country and abroad withsound fellowships

PSO-4: Have enough subject knowledge to move ahead in entrepreneurship endeavors in biotechnology.Course Outcomes (COs)

- ***B.Sc. in Biotechnology*** *is currently being run by the department of Biotechnology*

Paper Title	**Course Outcome**
Biochemistry	• Theoretical knowledge of various topics as per the syllabus • Exhaustive study of enzyme kinetics and bio-molecules, different metabolic pathways. • Familiarization with Bioenergetics concepts, generation of ATP • Experimentation related to enzyme kinetics, protein/sugar/lipid estimation using different methods, titrations etc.
Cell & Developmental Biology	1. Study of cell theory, Cell organelles, Ultrastructure, Roles of cell organelles. 2. Exhaustive study of Cell Signaling pathways, secondary messengers etc 3. Understanding of Developmental biology: Stem cell and cancer, Differentiation in plant tissue 4. Familiarization with methods of cell-study, various forms of Microscopy, staining for microscopy etc.

Molecular Biology	1. Understanding of Genome organization, Development of basic concepts in DNA/RNA structure , Replication, Repair & Recombination. 2. Knowledge of transcription and translation in prokaryotic and eukaryotic system. 3. Development of concepts of Oncogenesis, oncogenes and tumor suppressor genes. 4. Hands on training on DNA & RNA isolation by different techniques; plasmid isolation, transformation, Electrophoresis, quality check of Nucleic acids, restriction digestion, PCR, RFLP etc
Microbiology and Industrial	1. Theoretical knowledge of microbial diversity & systematics, Microbial growth and physiology;

Applications	Study of size, shape and growth pattern, nutrition type of microbes. 2. Experimental knowledge of Sterilization, disinfection, safety in microbiological laboratory. Preparation of media, Isolation and maintenance of organisms by plating, Streaking and Serial dilution methods, Storage of microorganisms, Gram Staining and enumeration of microorganisms. 3. Familiarization of assays related to antibiotics production and demonstration of antibioticresistance
Biostatistics and Computer Applications	1. Comprehensive study of various topics including Data representation methods, measures of central tendency, variance 2. Practical knowledge of application of correlation and regression analysis, test of significance: F and t tests, Chi square test etc. 3. Study on sigma plotter, null hypothesis, Bioinformatic methods, Basic idea of computer languages 4. Familiarization with biological databases, sequence, structure and strain database, Secondary and sequence analysis of DNA, RNA and proteins
Plant Biotechnology	1. Knowledge of various topics including Organogenesis; Somatic embryogenesis; Regulation and applications; Artificial seed production; Micropropagation; Somaclonal variation; Androgenesis, somaclonal variation etc 2. Development of concepts in Agrobiology, Genetic transformation: its various methods and applications 3. Hands on training on Plant Tissue Culture, artificial seed production, cell suspension cultures, fermentation, secondary metabolite production and plant transgenics 4. To understand the importance of Plant TissueCulture is an essential requirement for genetic improvement, conservation, mass propagation andmaintenance of uniformity of traits through generations.

BioPhysics	1. Concept building in various topics including: Spectroscopy, chromatography, electrophoresis, centrifugation and their different variants 2. Practical knowledge of Chromatographic techniques, Spectroscopy techniques, protein isolation/purificationusing different techniques ,quantitative and qualitative estimations of biomolecules 3. Development of understanding on Radioactivity, Radioisotopes and their uses in biology, measurement of radioactivity etc. 4. Theoretical basic concept building in Protein crystallization; Enzyme and cell immobilization techniques
Genetic Engineering	1. Elaborated structure and properties of genetic material; Restriction enzymes and other enzymes related to genetic manipulation. 2. Theoretical knowledge of advance techniques like, FISH, EMSA, CHIP etc. 3. Introduction to Cloning vectors, cloning methodologies, PCR and its applications; DNA sequencing 4. Hands-on experience in genomic DNA isolation, Restriction digestion, gel-purification, ligation, transformation, induction of recombinant protein synthesis, protein purification etc etc.
Molecular Genetics	1. Theoretical knowledge of various topics of classical and modern genetics including: useful bacterial phenotypes, mutations, mutagenesis, transformation, conjugation and transduction. 2. Familiarization with concepts of Mendelian and non-Mendelian genetics, including: genetic diseases, human pedigrees, x-linked inheritance, Mitochondrial inheritance, genomic imprinting, behavioral traits etc 3. Study of molecular genetics of Lambda phage, lytic/lysogenic cycles. Population genetics, migration etc.
Genomics & Proteomics	1. Knowledge of Structural organization of prokaryotic, eukaryotic and organelle genomes. DNA

	sequencing-principles and translation to large scale projects; Recognition of coding and non-coding sequences and gene annotation; Tools for genome analysis- RAPD,RFLP, DNA fingerprinting etc 2. Familiarization with developments in Genome sequencing projects related to plants, animals, and different groups of microbes. 3. Concept building in pharmacogenomics, functional genomics and proteomics, PISA, DNA-array , protein-array etc
Bioprocess Engineering & Technology	1. Basic concept building in Basic principle of Biochemical engineering, including, Isolation, screening and maintenance of industrially important microbes various topics as per the syllabus and isolation, screening and maintenance of microbes important for industries. 2. Application of microbes in waste management and food industry. 3. Study of downstream processing techniques: filtration, centrifugation, sedimentation, flocculation; Cell disruption; Storage and packaging
Environmental Biochemistry & Biotechnology	1. Theoretical knowledge of Environment; Basic concepts; Resources; Eco system: plants, animals, microbes; Ecosystem management; Pollution, Renewable resources; Sustainability; Microbiologyof degradation and decay. 2. Study of role of biotechnological techniques in environment protection. Waste water collection; control and management; Waste water treatment; Sewage treatment through chemical, microbial and biotech techniques 3. Concept building in alternate energy sources: Biomass as source of energy; Bioreactors; Rural biotechnology; Biocomposting; Biofertilizers; Vermiculture; Organic farming; Bio-mineralization; Biofuel etc.
Animal Biotechnology	1. Theoretical knowledge of various topics as per the syllabus including basic cell culture techniques; Primary culture, secondary culture; Continuous cell lines; Suspension cultures; Transfection,

	pleuripotency, stem cells etc 2. Study of various approaches related to vaccine production, disease diagnostic assays and many other assays involved in animal health management. 3. Concept building in animal reproductive biology, Animal genomics and DNA forensics: Embryo transfer; Micromanipulation of animal embryos; Transgenic animal technology; RFLP, RAPD, proteomics, metobolomics; DNA Barcoding; Detection of adulteration in meat using DNA based methods; microbial forensics etc.
Immunology &Immunotechnology	1. Theoretical knowledge of various topics including, antigens, antibodies, adaptive and innate immunity, organs and cells of immune system etc 2. Hands on training on advanced immunological techniques viz., ELISA and its variants, western blotting, immunodiffusion methods, immunoelectrophoresis, determination of blood groups etc. 3. Idea of Immune responses generated by Lymphocytes, Antigen-Antibody interactions. 4. Vaccine technology and Clinical immunology: Immunity against Bacteria, viral, fungal and parasitic infections; Tumor immunology; DNA and protein based vaccines, plant-based vaccines, reverse vaccinology; Peptide vaccines, conjugate vaccines; Hybridoma etc.
Plant Resource ad Technology	1. Knowledge of genome organization of different viruses e.g. Rabies, HIV, Hepatitis etc. and pathologies associated with their infection in various hosts. 2. Development of anti-virals, anti-viral host immunity, vaccinations against viruses etc. 3. Study of plant viruses: CaMV, TMV, CTV, RDVetc; their structure, genome organization and associated diseases. 4. Familiarization with Methods to study plant viruses; Infectivity assays – Sap transmission, insect vector transmission, agroinfection (using Agrobacterium); serological methods etc.

Project/Thesis work	1. Research on various topics as per the expertise and facilities available in the department (and with collaborators), including hands on training on various advanced molecular and analytical techniques 2. An overall study on the concerned plant/animal/microbial system addressing any of relevant and pursuable scientific problems. 3. Familiarization with good laboratory practices, data presentation, thesis writing etc.

S. No	Subject of the paper	Number of paper	Max Marks	Min Pass Marks	Dura-tion
Compulsory papers					
1	Samanya Hindi or General English or Elementary Hindi or History of Indian Civilization		100	36	3 hr
2	Elementary Computer Applications		100	36	3 hr
3	Environmental Studies		100	36	3 hr
B.Sc. Part I					
C1	Inorganic chemistry	Chem I	50	18	3 hr
C2	Organic chemistry	Chem II	50	18	3 hr
C3	Physical chemistry	Chem III	50	18	3 hr
C4	Practicals	Chem IV	75	27	5 hr
B1	Cosmogenesis and evolution	BBT I	50	18	3 hr
B2	Biochemistry	BBT II	50	18	3 hr
B3	Biophysics & Biotechniques I	BBT III	50	18	3 hr
B4	Cytology & Developmental Biology	BBT IV	50	18	3 hr
B5	Principles of Genetics	BBT V	50	18	3 hr
B6	Microbial resources & technology	BBT VI	50	18	3 hr
B7	Combined practical	BBT VII	150	54	10 hr
B.Sc. Part II					
C5	Inorganic chemistry	Chem V	50	18	3 hr
C6	Organic chemistry	Chem VI	50	18	3 hr
C7	Physical chemistry	Chem VII	50	18	3 hr
C8	Practicals	Chem VIII	75	27	5 hr
B8	Comparative physiology	BBT VIII	50	18	3 hr
B9	Molecular Biology	BBT IX	50	18	3 hr
B10	Plant resources & technology	BBT X	50	18	3 hr
B11	Biophysics & Biotechniques II	BBT XI	50	18	3 hr
B12	Ecology & Environmental Biotechnology	BBT XII	50	18	3 hr
B13	Cellular interactions	BBT XIII	50	18	3 hr
B14	Combined Practical	BBT XIV	150	54	10 hr

B.Sc. Part III					
C9	Inorganic chemistry	Chem IX	50	18	3 hr
C10	Organic chemistry	Chem X	50	18	3 hr
C11	Physical chemistry	Chem XI	50	18	3 hr
C12	Practicals	Chem XII	75	27	5 hr
B15	Animal resources & technology	BBT XV	50	18	3 hr
B16	Genetic Engineering	BBT XVI	50	18	3 hr
B17	Elementary mathematics & Biostatistics	BBT XVII	50	18	3 hr
B18	Fermentation technology	BBT VIII	50	18	3 hr
B19	Biotech enterprises and socioeconomic issues	BBT IX	50	18	3 hr
B20	Emerging technologies	BBT XX	50	18	3 hr
B21	Combined Practicals	BBT XXI	150	54	10 hr

Department of

Home Science

Programme Outcomes, Programme Specific Outcomes and Course Outcomes

Programme outcomes (POs), Program Specific outcomes (PSOs) and Course outcomes (COs) of the Programmesoffered by the University

Programme Name
M. Sc. Food & Nutrition
B.Sc Home Science

Programme outcome (POs):

Communication and Extension

- Acquire knowledge, skill and attitude to work with the communities
- Get sensitized on the issues of society
- Impart skill training programmes
- Explain and use sociological concepts and theories
- Compile , interpret and analyse data of social systems
- Enhance people's capacity for social functioning towards better quality of life
- Competency in rural development practices
- Achieve desirable change in the development and empowerment of people
- Capacitated to become participating and contributing citizens
- Acquire knowledge to develop entrepreneurial skills

Resource Management

- Exhibit efficient resource use potentials at home and work
- Showcase domain specific role clarity
- Shine as competent graduates
- Appreciate nuances of value based quality life skill oriented learning
- Blend relevant instructions with real time applications in career
- Apply lateral thinking with techno fervour
- Act as proactive agents of change

- Enjoy a competitive edge in career options
- Buttress technological linkages for professional development
- Be committed as responsible consumers and able designers

Food Science and Nutrition

- Understand the role of food and nutrition for the welfare of the community
- Excel in the area of personal and public health nutrition
- Apply skill based knowledge in food industry
- Acquire entrepreneurial skills in the field of food science and nutrition
- Excel as academicians and research personnel
- Develop comprehensive and analytical skills in food industries and health sectors
- Take up professions in community upliftmentprogrammes
- Gain insight in public health nutrition for employment in State and Central government

Course Outcomes (COs):

S.No.	Name of the course (Paper)	Course Outcome
	Community Organization and Development Theories	Student should be able to: • Understand the concept, structure and organisation of different types of

		communities • Understand the factors contributing to change in community • Role of community organisation and their mobilisation for developmental goods. • Understand the concept, theories of leadership, pattern and characteristics of leaders of different community • Assessment of socio economic state tribes.
	Sustainable Development Initiative & Approaches	Student should be able to: • Understand the concept of sustainability and development • Understand community resources and identify thee trends in the extent and consequences of their utilization • Evaluate existing structure and established arrangements for sustainable management of community resources • Understand relationship between environmentally sound technologies and sustainability • Awareness or survey of community regarding concept of sustainability with structured questioner or schedule • Mapping of available resources • Evaluation of programme which are working for sustainable development of community • Evaluation of government policies and programme • Environmentally sustainable technologies for conservation of natural resources
	Human Learning Psychology	Student should be able to: • Human learning psychology • Types of learning for change in knowledge, attitude and skill • Indicators of human behaviour in learning • Factors affecting skill learning • Task description and task analysis • Process, development of test/ scales/units
	Programme Design and Evaluation	Student should be able to: • Understand process of programme planning in extension

		• Develop ability in planning extension programmes • Learn the principles and procedure involved in programme planning implementation • report and recording • Procedure for recording
	Computer Application in Communication and Extension Statistics	Student should be able to: • Understand use of computer in distribution and statistical analysis • Developed skill of drafting text, reports, tables, figures etc.
	Extension Education System	Student should be able to: • Understand the changing concept of extension • Get acquainted with trends in extension approaches and model • Identify the support system in extension education • Knowledge on support structures national e extension system and extension in other countries • Prepare report on visits for studying structures and functioning related to community welfare
	Training Methodology	Student should be able to: • Conceptualize the training process • Understand the different methodologies and evaluatation of suitability for training • Organisation facilitating intervention for facilitating development • Developing skill in selection and use of different training methods
	Communication Approaches in Extension	Student should be able to: • Understand application of communication approaches for communication of extension messages to different target groups • Develop skill of preparation and use of tools of communication • Identify themes for communication in extension through literature research, experiences and pilot study • Prepare , present and evaluate the projected and non projected tools
	Entreprene urship Developm ent in	Student should be able to: • Conceptualized inputs regarding entrepreneurship development in

	Communication	communication • Sensitise and motivate towards entrepreneurship development • Orient and impart knowledge towards identifying and implementing entrepreneurship opportunities • Do SWOT analysis and can suggest strategies for action • Understand the formalities for registrations and licences for enterprise • Prepare and use the business games for development of entrepreneurial qualities
	Research Methods in Communication and Extension	Student should be able to: • Know importance of research in communication and extension • Understand the type, tools applicable to research problem • Develop skill of preparing out line of research work • Conduct pilot study for calculating validity, reliability and usability of tools • Prepare master tables for analysis
	Development Project Management	Student should be able to: • Get insight related to component of project planning • Impart skill in project planning and management • Apply PRA as techniques for identification of project • Prepare complete project proposal with supportive document
	IEC Material Production	Student should be able to: • To develop skill of production of projected • To develop skill of production of non projected material
	Management of Non Government Organization	Student should be able to: • Understand working of NGOs • Understand the formalities of registration of NGOs • Plan, implement and evaluate the NGO programmes • Prepare a complete proposal for funding from GOs and NGOs
	Writing for Media	Student should be able to: • Understand importance of writing media • Develop competence in writing for various media

		• Understand operation of various audio visual aids • Prepare visual/ non projected material • Prepare script for television programme • Acquired knowledge about media production centre
	Curriculum Planning and Development	Student should be able to: • Develop specific objectives considering basic needs of curriculum planning • Understand various steps of curriculum planning • Analyze the content of developed curriculum • Evaluate curriculum for its effectiveness
	Management of Human Service Organization	Student should be able to: • Understand the concept of human service • Become aware of human service organization • Understand and apply the principles of management of human service organization • Assessment of human service organization
	Media Planning and Social Advertising	Student should be able to: • Understand the process of social marketing and social advertising and its comparison with commercial and marketing of products and services • Identify the steps and consideration involved in media planning for different groups • Identify media types and issues • Understand the issue and problems of social marketing and advertising • Understand people perception of trends, impact and need for social advertising
	Curriculum Text Production	Student should be able to: • Understand components of curriculum • Assess the educational needs of different target groups • Produce curriculum text • Evaluate the course for difficulty of language, legibility and accessibility
	Community Health and Hygiene Education	Student should be able to: • Understand the concept of health and hygiene

		• Know supportive services and programmes for community health management • Understand the health administrative set up at district level • Develop an educational programme on any hygiene related issued
	Media Research and Evaluation	Student should be able to: • Understand need and scope of media research • Understand role of media in infusing peoples lives • Understand the different types of communication research • Understand the applicability of different types for small and large groups and mass media • Create awareness about media research organization • Understand the role in infusing policies and programme on different media • Prepare evaluation to study the various media • Study impact of media on society by conducting survey in near by locality • Policies and programme implication of media research • Understand the role of media advocacy
	Evaluation of Curriculum and Text	Student should be able to: • Become aware about models of curriculum evaluation • Evaluate curriculum and text effectively • Prepare the evaluation proforma for any curriculum used in life long learning
	Writing Editing and Reporting for Mass Communication	Student should be able to: • Understand application of mass communication in development • Develop skill in production of material for mass communication • Evaluate published new story, articles, editorial • Prepare and production computer aided visual programme
	Current Trends and Issues in Extention and Communication	Student should be able to: • Create awareness regarding current trends, issues • Study current trends, issues and researches in communication • Understand extension by current reading, surveys, use of internet.

		• Prepare report • Present presentation on various current communication and extension methods
	Scientific Writing	Student should be able to: • Understand national/ international standards of scientific writing • Develop skill of writing research reports • Use of library • Write references from different sources • Review, understand and critically evaluate thesis, dissertation, abstract
S. No.	Name of the course	Outcomes
1	Human Resource Management	Students should be able to • Aware about of human resources and there potential • Understanding the potential of individual and as an national resource • Acquire ability to use human resource • Develop ability to improve human resources • Analyse job design recruitment and select and training of human resources • Performance appraisal
2	Principles of Management	• Know the component, human and scientific aspects of management functions • Know the importance of decisions in management. • Gain managerial skills.
3	Human Behaviour in Resources Management	• Understand importance of Human Behaviour in Resources Management • Develop skill of designing, testing altitude, motivation and emotional intelligence. • Sensitize effect of stress on resource management.
4	Resource Development Programme Design and Evaluation	• Understand the process of programme designing • Develop ability in planning resources development programme • Understanding types and tools of evaluation • Understanding need for reporting and recording
5	Computer Application in	• Understanding basics of computer

	Resource Statistics	• Understanding MS Word, MS Excel • Skill of graphical presentation • Use for analysis of data
6	Residential Furnishing and House Keeping	• To understand the factors influencing space design organization for optimum comfort and functionalism • Develop skills of computer aided interior design (Auto CAD) • To evaluate ergonomically residential interior space for various activities • To acquaint with the adequate facility for work , relaxation , rest , comfort , privacy , care , aesthetic etc. through interior space designing • To study the materials along with fittings and fixtures used in residential interior
7	Household Technology	• Sensitize indigenous technology • Understanding existing technologies in areas of home science • Understanding various sustainable technologies • Develop skill in preparing models of various sustainable technologies
8	Communication Approaches in Response Management	• Understanding application of communication approaches • Understanding methods of communication • Understanding projected and non projected communication tools • Understanding of proper use communication tool
9	Entrepreneurship Development	• Promote entrepreneurial skills amongst students • Understand the process and procedures of setting small enterprises • Personal effectiveness • Analyse the environment related to small scale industry • Develop managerial skills for entrepreneurship development
10	Research Methods in Resource Management	• Know importance of research in resource management • Understand the area of research in resource management • Understand the type, tools applicable to research problem • Develop skills of preparing out line of research work
11	Ergonomics	• Understand role of ergonomics in work effectiveness • Determining the relationship of anthropometric dimensions of workers • Identifying types of postures

12	Financial Management	• Understand wise use of money • Understand role of successful financial management • Understand Financial Decision making
13	Home Event Management	• Understand managerial and operational aspects pertaining to home events • Develop practical event management skills • Develop marketing and sponsorship strategy • Understand working to a budget with goal
14	Home Furnishing	• To know the home furnishing • Develop skills in home furnishing • To evaluate residential interior space for various activities • Acquaint with the adequate facility for work , relaxation , rest , comfort ,privacy , care , aesthetic etc. through interior space designing • Study the materials along with fittings and fixtures used in residential interior
15	Front Office Operation and Accommodation	• Understand importance of hospitality industry • Develop effective communication skills • Develop the art of dealing with people • Understand the organizational procedures of the front office • Comprehend the principal of front office operation
16	Community Event Management	• Understand managerial and operational aspects pertaining to community events • Develop practical event management skills • Develop marketing and sponsorship strategy • Understand working to a budget with goal • Understand fund raising community events
17	Household Equipment	• Understand safely against household appliances • Know need for equipment testing • Understanding lows and regulations Governing appliances • Knowing recent trends in household appliances
18	Food Service Management	• Gain knowledge about the food service in India • Understand management of food service unit • Understand different needs and jobs of food service
19	Institutional Event	• Understand managerial and operational aspects pertaining to institutional

	Management	events • Develop practical event management skills • Develop marketing and sponsorship strategy • Understand working to a budget with goal • Understand protocol working with the proves
20	House Keeping and Facility Management	• Become aware of different areas and functions of house keeping department • Develop and acquire skills in house keeping activities • Gain knowledge regarding for maintenance of rooms • Know duties and responsibilities of house keeping staff
21	Travel Management	• Awareness about tourism and it's scope in India • Develop version skills required for travel management • Learn about business management, marketing, human resource management
22	Resources Informatics	• Develop skills in data base management • Identify and analyse data • Know about data base collection
23	Current Issues and trends in Resources Management	• Create awareness regarding current trends • Know about current issues in society • Identify research areas in various aspects • Identify solution for social issues
24	Scientific Writing	• Develop skill of writing research reports • Understand national and international standards of scientific writing • Understand some common features of scientific style • Avoid plagiarism and be able to paraphrase scientific ideas • Identify the difference between description and analysis

Sr. no	Name of course	Course outcome
1	Food Science	Student should be able to • Understand of composition of various food stuffs.

		• Familiarize with changes occurring in various foods as a result of processing & cooking. • To use the theoretical knowledge in various application and food preparation. • Gain the knowledge of pigments present in fruits & vegetable & their application for health benefit. • Role of different antioxidant to boost • Immunity. • Use the knowledge for the health & community.
2	Human Physiology	• To understand relationship of physiology & role of nutrition. • To gain the knowledge of hormones & their role in nutrition & health. • To know the various methods of measuring body fluids.
3	Food & Human Behavior	• To understand indicator of human behavior. • Know factors influence dietary practices • Of individual. • Understand consequences of the behavior on health. • Know means of modifying food behavior. • Develop skill of developing scale. • Able to develop communication strategies.
4	Nutrition Programme Design and Evaluation	• Understand the process of programme design. • Develop ability in planning nutrition programme. • Develop nutrition awareness skill & counseling skill. • To conduct the programme& evaluate.
5	Computer Application in Food Statistics	• Understand use of excel in analysis of data related to food & nutrition. • Develop skill of drafting text, tables, and figures. • To handle the computer easily & do the basic operations.

		• To develop the skill of presentation.

6	Food Microbiology	• Gain knowledge of role of microorganism in human & environment • Understand the importance of food spoilage. • Understand the role of microbes in food borne disorder • Understand integrated approach to food safety. • Improve the sanitation & hygiene practices. • To prevent family & community from food poisoning /food borne disease.
7	Nutritional Biochemistry	• Augment the biochemistry knowledge. • Understand mechanism of human body for regulation of metabolic pathways. • Become proficient for specialization in nutrition. • Perform biochemical analysis with accuracy & reproducibility. • Able to do the laboratory estimation
8	Communication Approaches in Nutrition	• Understand use of communication approaches in improving nutritional status of population. • Develop skill of preparing tools of communication. • To develop skills of presentation. • To create various ideas & use of material for effective communication. • To give the message about nutrition for community.
9	Entrepreneurship Development in Food	• Provide conceptual inputs regarding entrepreneurship development in food. • Sensitize & motivate towards • Entrepreneurship development. • Impart knowledge towards entrepreneurship opportunities. • To implementing entrepreneurship opportunities. • To motivate entrepreneurs. • To provide different catering services like pack lunch, therapeutic diet. • To aware different government policies for entrepreneur.

10	Research Methods in Nutrition	• Know importance of research in food science & nutrition. • Understand the tools applicable to research problem. • Construct common data collection tool. • Develop skills of preparing outline of research work. • Able to collect various types of data. • Able to analyses the data. • Able to test the hypothesis. • To develop skill in data base management
11	Food Product Development	• Able to develop nutritionally viable product. • To develop product which meeting consumer needs commercially viable. • Able to develop various nutritionally enrich • Product. • To improve the skill & interest in preparing recipes. • To develop creative & innovative products.
12	Sensory Evaluation	• Use various sensory methods for evaluating variety of foods. • Analyze & interpret sensory evaluation data. • To plan a sensory experiment. • To understand etiology, physiologic,& metabolic anomalies of acute &chronic diseases & patient needs
13	Therapeutic Nutrition	• Know the effect of various diseases on nutritional status & dietary requirement.

		• To recommend & provide nutritional care • for prevention & treatment of diseases. • Able to diagnose sign & symptoms of various diseases. • Able to prevent the disease through proper nutrition.
14	Assessment of Nutritional Status	• Able to diagnose sign & symptoms of various diseases. • Able to prevent the disease through proper nutrition. • Orient the student with all methodologies applied in nutritional assessment & surveillance of human groups. • To develop specific skill to apply the most widely used methods.
15	Kitchen Planning, Equipment and Plants	• Understand the importance of layout in a food service unit. • Determine the factors that affect the kitchen plan. • Understand the principle of planning layout. • Design a kitchen keeping in mind the principles of planning. • To plan kitchen layout for small food service unit.
16	Biochemical Correlation with Nutritional Therapy	• To correlate sign & symptoms pathological condition of patient. • To do the estimation of cholesterol & hemoglobin. • To detect the deficiency diseases & treated through correct nutrition. • To know the biochemistry of different diseases.
17	Nutritional Epidemiology	• Understand the principle of epidemiology. • Understand importance of nutritional epidemiology in community & public health. • To design & evaluate studies. • To design & evaluate nutritional programme. • To plan implement & evaluate nutrition research. • To introduce strategies in epidemiological research.

18	Food Safety Quality Control	• Importance of quality assurance in food industry. • Various test & standard for quality assessment & food safety. • Various test used to detect food adulteration. • Steps to consider for successful quality control programme. • Able to detect adulteration in different food. • Able to do the consumer protection. • To test the different food for their quality.
19	Dietetic Techniques & Patient Counseling	• Plan, organize / supervise preparation & service of different kinds oftherapeutic diets in hospital dietary service. • Develop skills for patient counseling. • Interact effectively with patient & their families. • Work as a diet counselor. • To provide service as a part of the medical team. • To give advice in the context of the patients sociocultural & economic milier. • Know the techniques of obtaining relevant information for patient through medical history assessment. • Provide patient diet Tiffin service to various hospitals. • To educate patient and create awareness in community.
20	Community Nutrition	• Understand the causes determinants & consequences of nutrition problemin society. • Familiar with various approaches to nutrition & health interventions programme&policies.Plan implement & evaluate nutrition programme. • Give message for nutrition & health education to the community. • Develop low cost nutritious recipes. • To detect determinant of food security. • To understand strategies to combat public nutrition problems.
21	Food Service Management	• Gain knowledge about the food services in india.

		• Understand the special characteristics of food service establishment. • To know the resources required for managing food outlets. • Learn man power management techniques. • To know the types of costs involved & how to control them. • To know the importance of food service institution. • To handle the cost management & accounting. • Think of starting food service. • Handle the food service unit.
22	Food Informatics	• To develop skill in data base management. • Develop knowledge clinical nutrition, human nutrition & community nutrition. • To create data with the help of software. • To study various database in the subject.
23	Current Issues in Food and Nutrition	• To sensitize student regarding current trends, issues &research in various aspects of food science &nutrition. • To debate in various emerging areas in food science & nutrition. • Able to handle the food safety practices • & quality control. • To handle special nutritional requirements in emergencies & extreme environment. • To use special feeding methods in different disease condition.
24	Scientific Writing	• Understand National & international standards of scientific writing. • Develop skill of writing research reports. • To do technical work.

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