SECAB's A.R.S.INAMDAR ARTS, SCIENCE AND COMMERCE COLLEGE, VIJAYAPURA: POs, PSOs & COs

BA Optional English

Program Learning Outcomes:

Students will demonstrate the ability to

- Read closely in a variety of forms, styles, structures, and modes, and articulate the value of close reading in the study of English literature.
- Show familiarity with major literary works, genres, periods, and critical approaches to English Language and Literature, Indian Writing in English and Literary Criticism.
- Write clearly, effectively, and creatively, and adjust writing style appropriately to the content, the context, and nature of the subject.
- Develop and carry out research projects, and locate, evaluate, organize, and incorporate information effectively.
- Articulate the relations among culture, history, and texts.

Programme Specific learning outcomes:

- Reading: Students will become accomplished, active readers who appreciate ambiguity and complexity, and who can articulate their own interpretations with an awareness and curiosity for other perspectives.

- Writing skills and process: Students will be able to write effectively for a variety of professional and social settings. They will practice writing as a process of motivated inquiry, engaging other writers' ideas as they explore and develop their own. And they will develop an awareness of and confidence in their own voice as a writer.

- Sense of Genre: Students will develop an appreciation of how the formal elements of language and genre shape meaning. They will recognize how writers can transgress or subvert generic expectations, as well as fulfill them. And they will develop a facility at writing in appropriate genres for a variety of purposes and audiences.

- Culture and History: Students will gain knowledge of the major traditions of literatures written in English, and an appreciation for the diversity of literary and social voices within–and sometimes marginalized by–those traditions. They will develop an ability to read texts in relation to their historical and cultural contexts.

- Critical Approaches: Students will develop the ability to express their own ideas as informed opinions that are in dialogue with a larger community of interpreters, and understand how their own approach compares to the variety of critical and theoretical approaches.

- Research Skills: Students will be able to identify topics and formulate questions for productive inquiry. And they will use their chosen sources effectively in their own writing, citing all sources appropriately.

- Oral communication skills: Students will demonstrate the skills needed to participate in a conversation that builds knowledge collaboratively: listening carefully and respectfully to others' viewpoints; articulating their own ideas and questions clearly. Students will be able to prepare, organize, and deliver an engaging oral presentation.

- Valuing literature, language, and imagination: Students will develop a passion for literature and language. They will appreciate literature's ability to elicit feeling, cultivate the imagination, and call us to account as humans. They will cultivate their capacity to judge the aesthetic and ethical value of literary texts–and be able to articulate the standards behind their judgments. They will appreciate the expressive use of language as a fundamental and sustaining human activity, preparing for a life of learning as readers and writers.

Course Outcome:

Upon completion of this course, the student will be able to:

- Recognize poetry, drama, prose and fiction from a variety of cultures, languages and historic periods.
- Understand and appreciate poetry, drama, prose and fiction as a literary art form
- Analyze the various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme, etc.
- Identify a variety of forms and genres of poetry, drama, prose and fiction from diverse cultures and historic periods, such as sonnets, ballads, dramatic monologues, free verse, short story, tragedy, comedy, one act play, novel, biography, autobiography etc.
- Recognize the rhythms, metrics and other musical aspects of poetry: conventions of drama: elements of prose and fiction.
- Read and discuss selected poems, short stories, essays, dramas, novels, in English literature and in translation.
- Apply the principles of literary criticism to the analysis of poetry.
- Broaden their vocabularies and to develop an appreciation of language and its connotations and denotations
- Develop their critical thinking skills.
- Develop a deeper appreciation of cultural diversity by introducing them to poetry, drama, prose and fiction from a variety of cultures throughout the world
- Develop their own creativity to enhance their writing skills.

PROGRAMME OUTCOMES- Basic English

B.A. and B.Sc. with English as basic subject will able to

a) Develop writing skills – by constructing various types of sentences
b) Compose different types of letters, advertisements, essays, paragraphs, reports etc.
c) Do exercises in précis writing, summary writing, rearranging words into sentence
d) Write by using appropriate articles, prepositions modal verbs, tenses, one word substitutions, prefixes, suffixes and also homonyms and homophones.
e) Learn art of conversation pronouncing words correctly with proper accent, and intonations
f) Learn, write and write about certain major issues of society like environment, gender justice, media, journalism etc.
g) Use language with correctness of grammar, vocabulary and usage
h) A moderate insight into some illustrative texts or extracts from classics of different uses, genres and movements.
i) To use English language efficiently with correctness of grammar and literary flavor
j) To teach English language and literature to primary, secondary students.

COURSE OUTCOMES

The syllabi of English as basic and optional course designed so as to inculcate the various language skills step by step through different semester with well-defined objectives.

- In the first semester of B. A. and B. Sc. basic course, the students will focus on writing and reading skills like punctuations, arrangement of words, sentence linkers
- During the second semester the students will learn sentence patterns, correct form of verbs, correctness of sentences use of passive voice and
- Develop study skills like writing reading, speaking, listening and reference.

Programme specific outcomes

By offering B.A. with English as one of the optional subjects, the learners at the end of the course will be able following competencies.

1. Sufficient exposure to the various forms of literature like prose, poetry, drama, novels and short stories
2. Learning art of appreciation by knowing various critical approaches
3. Adequate knowledge about the evolution of English language from its early age to the present day English
4. A overall view about the development of English literature in various stages and movements in terms of authors theirs works and contributions
5. Acquiring knowledge about the etymology of words in English.

DEPARTMENT OF ARABIC

Basic Arabic

Programme outcomes

Po 1- Gained the knowledge of Arabic language.

Po 2- Students are comfortable in effective communicative skills.

Po 3- Plays an important role in Islamic faith and understand its importance.

Po 4- It has developed universal moral values.

Po 5- Develops the translation skills like Arabic into English or English into Arabic.

Po 6- Develops the quest for knowledge.

Po 7- Develops the ability of team work.

Po 8- Develops the leadership qualities and national integration.

Po 9- Understand the contributions of great personalities.

COURSE OUTCOME

Co 1- Students gain basic knowledge of Arabic grammer including noun, pronoun, subject & object, gender, singular & plural, adjective construction, possessive construction, interrogative words, prepositions, vocative particles, verb etc.

Co 2- Students develop listening, speaking & writing skills in Arabic language.

Co 3- Students acquire the ability of translation skills in Arabic.

C0 4- students know and understand the Islamic culture.

Co 5- Appreciate the contributions of great personalities like prophet Muhammad (S.A.W.S), HazratabubakarSiddique(R.A), Hazratumarfarooque (R.A), Hazratusman (R.A), Hazratali(R.A).

Co 6- Develops the skills of essay writing in arabic.

Co 7- Know the important contributions of Islamic women like HazratAyesha(R.A), Hazratfathimuzohra(R.A), Asma bint-e Abubakar (R.A) and many more.

C0 8- Understand the similarities between islam and other religions.

Co 9- Appreciate the loan words in Arabic.

Co 10- Know about the generousity of Hatim- tai.

DEPARTMENT OF CHEMSTRY

Programme outcomes (PO) ,programme specific outcomes (PSO) and course outcomes(CO).

I) PROGRAMME OUTCOMES.

A student who completes B.Sc. with chemistry in SECAB'S A.R.S.Inamadar college will be able to

1) Chemistry faculty will strive to maintain a quality programme in the subject matter being taught ,including current research areas.
2) Students will have functional knowledge in the fundamentals and applications of the current and scientific theories of all basic areas of chemistry.(Inorganic ,Organic ,Physical and Analytical and Biochemistry).
3) Students graduating with degree in chemistry background will be prepared for job market ,highly effective teachers at secondary schools, good researchers,clearly communicate the results of scientific work.
4) Students will be able to design develop and carryout scientific experimental skills, critical thinking skills, recording and analyzing skills , identifying and formulating a strategy for solving the new problems, applying suitable techniques to arrive at a solution.
5) Students will be able to explain why chemistry is an integral activity for addressing social, scientific ,economics and environmental problems.
6) Students are able to know the role of chemistry in our daily life ,in our society,use this basis for ethical behavior inissues facing chemists including an understanding of safe handling ,use of chemicals ,environmental issues facing presently our society in energy, health and also medicine.
7) Students are able to interpretation,debatedifferent point of view,documentation of lab experiments.
8) Students graduation with B.Sc.in chemistry gain employment in industry or government or professional schools,instructors etc.

II)PROGRAMME SPECIFIC OUTCOMES(PSO)

1) Demonstrate an understanding of principles and theories of chemistry including atomic and molecular structure ,periodic law ,ionic theory ,behavior and properties of gases, liquids and solids .Oxidation-reduction equlibrilium, kinetics, thermodynamics radioactivity and nucler reactions.
2) Demonstrate proficiency in organic chemistry including nomenclature , structure, reactions and reaction mechanisms, stereochemistry, data analysis and spectral analysis.
3) Every branch of science and technology is related to chemistry.
4) Apply appropriate techniques for the qualitative and quantitative analysis of chemicals in laboratories and industries.
5) Acquires an ability to synthesise ,separate and characterize,compounds using laboratory and instrumental techniques.
6) Will become familiar with the different branches of chemistry like analytical , inorganic , organic , physical environmental ,polymer and biochemistry.
7) Easily asses the properties of all elements discovered .
8) Helps in understanding the causes of environmental pollution and can open up new methods for environmental pollution control.
9) Develops analytical skils and problem solving skills requiring application of chemical principles.

III) COURSE OUTCOMES(CO).

B.Sc I sem.

1)Atomic structure and electronic configuration.
2)Principles of volumetric analysis- Titration ,types of titrations with examples.
3)Reaction mechanism- types of reactions,E1 and E2and SN1 and SN2 .
4)Alkanes-Preparation ,properties of alkanes and cycloalkanes .
5)Alkenes- Preparation and properties of alkenes.
6)Alkynes Preparration and propertiesof alkynes.
7)Gaseous state –PV isotherms ,Vander Waals equation.Molecuar velocities, collision properties.
8)Liquid state –Inter molecular forces, differences between solid ,liquid and gases.Laws of crystallography,Bragg's equation.

B.Sc.II sem.

1)s-Block elements –Properties of IA& IIA group elements and their comparative properties.
2)p-Block elements –Study of boron and silicon and carbon family.Strcture of diamond and graphite and interhalogens and halogens.
3)Arenes and Aromaticity –Varies mechanisms, aromatic properties and rules.
4)Aliphatic and aromatic compounds –Preparation and properties of nitrobenzene.
5)Nernst distribution law –Statement ,modification of law and applications.
6)Liquid mixtures-Varies binary mixtures, laws, azeotropic mixtures ,critical solution temperature.
7)Phase equilibria-Phase rule & its terms .Applications of phase rule to one and two component systems.

B.Sc.III sem.

1)Chemical bonding –Ionic bond –formation ,Born-Haber cycle ,covalent bond theory ,VBT&MOT,LCAO.structure and bond orderof varies molecules.
2)Non-aqueous solvents –Properties of non aqueous solvents like liquid ammonia and liquid sulphur dioxide.
3)Alcohols-Preparation ,reactions of mohydric ,dihydric and trihydric alcohols.
4)Classification and various named reactions and their mechanisms.
5)Ethers and Epoxides-Preparation properties andreactionsof ethers and epoxides.
6)Physical properties of liquids –Properties like surface tension ,viscosity&effect of temperature ,refractive index ,specific and molar refractions.
7)Chemical kinetics-Second order reaction collision theory and transition state theory and their comparision.
8)Thermodynamics-First law ,Cp & Cv and their relationship,expression for maximum work done ,J-T-effect,problems.

B.Sc.IV sem.

1)Nuclear chemistry- Radioactive properties of elements and their isotopes.
2)d-Block elements –general characteristics of transition elements .
3)f-Block elements –Varies properties and separation of lanthanides ,lanthanide contraction.
4)Aldehydes and ketones –Synthesis ,reactions ,structure of aldehydes and ketones.Helogens.

5)Aliphatic carboxylic acids and their derivaties-Synthesis ,reactions,and mechanisum of carboxylic acids,decarboxylation,esters,and amides.
6)Stereochemistry-Opticalprpperties ,D & L configuration,R & S notations,geometric isomerism, E_Z system.
7) Thermodynamics- Second law Carnot's cycle, problems.

B.Sc.V sem. Papre 5.1.
1)Organometallic chemistry-Definition,nomenclature,classification, applications of alkanes and aryls of Li,Al,Hg,Sn,and Ti.
2)Bioinorganic chemistry-Essential elements,Hb & Mb.Biological role of alkali and alkaline earth metal ions .Nitrogen fixation.
3)Inorganic chemistry-Types of inorganic polymers,compasision with organic polymers.Synthesis structural aspects of borazole,silicones andphosphonitryls.
4)Heterocyclic compounds-Molecular orbital picture and aromatic character of various heterocycles. Preparation,reactions of five and six membered heterocycles.
5)Organometallic compounds –preparation ,structure ,chemical reactions of organomagnesium ,organozinc ,organo lithium compounds.
6)Organo sulphur compounds-Nomenclature,structure,formation and reactions of organosulphur compounds.
7) Spectroscopy of organic compounds-Ultraviolet spectroscopy –Infrared spectroscopy-
8)Electrochemistry-Conductance ,molar, equivalent conductance.Kohlrausch law,ionic conductance. Applications of conductance measurements.
9)Catalysis-General characteristic of catalysis,acid-base catalysis,mechanism,pH dependence etc.
10)Chemical equilibrium- Equilibrium constant,law ofmass action,Le Chatelier principle,Claus-Clapeyron equation,applications.

B.Sc.Vsem. Paper 5.2.
1)Co-ordination compounds-EAN concept,types of ligands,CN 4&6. VBT,formation of coplexes based on VBT. CFT –tetraheral &octahedral complexes. CFSE
2)Organic reagents in inorganic analysis- Significance,preperration,properties and structure of DMG,EDTA,Oxine andortho-phenonthroline.
3)Carbohydrates- Classification,mechanism of osazone ,determination of configuration of glucose and fructose. Structural determination of disaccharides and of plysaccharides.
4)Terpenoids-Occurance, classification, isolation, isoprene rule& its applications.synthesis and elucidation of structure of citral and terpeniol.
5)Alkaloids –Classification ,synthesis of coniine,nicotine. Structure and uses of cocaine and atropine.
6) Vitamines and Hormones -Classification ,importance of vitamins and hormones.Synthesis of vit.A and Vit.C.Synthesis of adrenaline and thyroxine.
7) Photochemistry- Laws,florescence, phopspoescence, quantum yield,photosensitized reactions.
8)Physical properties and molecular structure-Optical activity, polarization,dipole moment, magntic properties.
9)Kinetics of complex reactions- Kinetics of consecutive ,parallel, reversible, and chain reactions.

B.Sc.VI sem. Paper 6.1.

1)Electroplating- Principles and practice,electroplating of Ni,Au,and Cr.

Cement – Raw materials ,manufacture by dry process .Mechanism of setting of cement.

Glass – Raw materials manufacture ,types of glasses,their composition and uses.

Metallurgy- Extraction of Uranium from pitch blends and extraction of Thorium from Monozite sand.

2)principles of Gravimetric analysis-Rules of ppt.purification of ppt, types of ppt .Effect of temp.,pH and complox formation,digestion , filtration,washing , drying and ignition.

3)Amines – Classification and nomenclature ,stereochemistry ,separation .preparation ,properties and reactions of aryl and alkyl amines.

4)Amino acids – Classification ,methods of synthesis and reactions. Peptides – Nomenclature ,geometry, structure determination ,end group analysis and synthesis. Proteins – Classification ,primary and secondary structure of proteins ,denaturation.

5)Ezymes- Nomenclature ,classification,active sites ,specificity of enzymes,kinetics,turnover number and cofactors.

6)Colligative properties- Semipermeable membrane ,osmosis,osmotic pressure,theory of dilute solutions ,laws of osmotic pressure ,isotonic solutions,Raoults law ,relative lowring of vapour pressure and molecular mass relation.Elevation in B.P. and depression in F.P.and their experimental determination.

7)Electromotive force-Measurement of EMF,types of electrodes, sign convention of electrode potential.Nernst equation, hydrogen electrode,Calomel electrode,silver-silver chloride electrode.Applications of EMF measurements ,concentrations with and without transference ,liquid junction potential.

B.Sc.VI Paper 6.2.

1)Introduction to analytical chemistry. –Role, classification ,selecting analytical method, neatness and cleanliness ,analytical balance, techniques of weighing ,calibration of glass ware. Sample preparation , principles of gravimetric analysis, Safety in analytical laboratory.

2)Errors and evaluation –Definition of terms mean and median. Precision standard devation ,accuracy, types of errors,determinate and indeterminate and gross .Source of errors ,methods of reporting analytical data,use of statistics.

3)Oils ,Fats and Detergents –Composition of oils ,fats and waxes, determination of acid value,iodine value ,saponificationvalue and their importance.Manufacture of soaps, types of soaps and syndets. Cleaning action of soaps.

4)Synthetic dyes and drugs. Colour and constitution ,classification of dyes ,synthesis uses of some dyes.

Drugs-Chemotherapy ,antimalerials, sulphadrugs,synthesis and some uses of some drugs.

5)Synthetic polymers-Addition, free radical vinyl polymerization, Ziegler-Natta polymerization,condensation polymerization. Natural and synthetic polymers.

6)Organic synthesis via enolates- Acidity of alpha hydrogens,alkylation of diethyl malonate and ethylacetoacetate,synthesis of ethylacetoacetate,keto-enol tautomerism.

7)Water Pollution –Types of water pollutants, biological degradation DO level ,BOD,industrial effluents –their effects and treatment effect of water pollutants on environment.

8)Analysis of water pollution –Objectives of analysis ,parameter for analysis ,heavy metal pollution ,public health, significance of various metals. Measurements of DO,BOD,COD, pesticides and water pollutants and analysis. Water pollution laws and standards.

9)Analysis of soil ,moisture ,pH, total nitrogen phosphorous ,silica,lime,magnesia,manganese,sulphur and alkali salts.

10)Wastes and their management-Origin of waste water ,types ,water pollutants and their effects. Source of water pollution domestic , industrial , agricultural soil and radioactive wastes as source of pollution .Plastics –reuse and degradation.

B. A. Optional Hindi

Programme learning out comes

1. Students will demonstrate the ability to read closing in a variety of forms, styles, structures and modes and articulate the value of close reading in the study of Hindi literature
2. The student gained knowledge about the relation between social cultural conditional of society. where the history of development of Hindi short stories was discussed in relation with the socio cultural impact in Hindi stories in different period
3. Students gained knowledge about the varous forms of prose like “Rekhachitra, Nibandh, Sansmarn,VengyaNatak, Kahani, Yatrasahitya, Jeevani and upanyas
4. Write clearly effectively and creatively and adjust writing style appropriately to the center the context and nature of the subject
5. Understanding the role played by the poet of Bakticult in literature and society in contest of SantKabeerKeshav, Bhushan and Chayawadipoets.

Programme specific learning out comes.

1. Developing skill of writing official letters in functions
2. Students will develop the spirit of nationalism Hindi as well as nature consciousness in Prasad poem “BeetiVibhavariJaagri” and Niralas poem “JagoPhirEkBaar”
3. Students will become accomplished, active reader who appreciate ambiguity and complexity and who can articulate their own interpretation with an awareness and curiosity for other perspectives.
4. Culture and history- students will gain knowledge of the major traditions of literature written in Hindi, and appreciation for the diversity of literacy and social voices within and sometimes marginalized by those traditions. They will develop and ability to read texts in relation to their historical and cultural contexts
5. Students will develop the ability to express their own ideas as informed opinions that are in dialogue with a larger community of interpreters, and understand how their own approach compares to the variety of critical and theoretical approaches.
6. Students will be able to identify topics and formulate questions for productive inquiry. And they will use their chosen sources effectively in their own writing citing all sources appropriately

Course Outcome:

Upon completion of this course, the student will be able to

1. Understand the origin of Hindi language & its literature.

2. Recognize poetry, drama, prose and fiction from a variety of culture, languages and historic periods.
3. Understand and appreciate poetry, drama, prose and fiction as a literary art form.
4. Analyze the various elements of poetry, such as fiction, tone, form, genre imagery, figures of speech, symbolism, theme, etc.
5. Identify a variety of forms and genres of poetry, drama prose and fiction from diverse cultures and historic periods, such as sonnets, ballads, dramatic monologues, free verse, short story, tragedy, comedy, one act play, novel biography, autobiography etc.
6. Apply the principles of literary criticism to the analysis of poetry.
7. Developed their critical thinking skills.
8. Develop a deeper appreciation of cultural diversity by introducing them to poetry, drama, prose and fiction from a variety of cultures throughout the nation
9. Develop their own creativity to enhance their writing skills.

Program Specific Outcomes Department of History
PSOs of B.A History

PSO1. ***Understand*** background of our religion, customs institutions, administration and so on.

PSO2. ***Understand*** the present existing social, political, religious and economic conditions of the people.

PSO3. ***Analyze*** relationship between the past and the present is lively presented in the history.

PSO4. Develop ***practical skills*** helpful in the study and understanding of historical events. They:

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□□□□□□□ (a) Draw historical maps, charts, diagrams etc.

(b) Prepare historical models, tools etc.

PSO5 .Develop ***interests*** in the study of history and activities relating to history. They:

(a) Collect ancient arts, old coins and other historical materials;
(b) Participate in historical drama and historical occasions;
(c) Visit places of historical interests, archaeological sites, museums and archives;
(d) Read historical documents, maps, charts etc.
(e) Play active roles in activities of the historical organizations and associations; and
(f) Write articles on historical topics.

PSO6. The study of history helps to impart moral education.

PSO7. History installs the feeling of patriotism in the hearts of the pupils

COURSE OUTCOMES COs OF THE COURSE B.A HISTORT

HISTORY OF ANICENT INDIA

CO1. Describe Prehistory and Proto history

Co2. Classify urbanization in the genetic Basin

CO3. Classification of Buddhism and Jainism

CO4. Acquire knowledge about Early Inventions.

CO5. Identify Early Indian Maps

HISTORY OF THE MEDIEVAL INDIA

CO1. Understanding of Delhi Sultanate

CO2. Analyse Mughal rule administrations, art, and architecture

Co3. Identify cultural synthesis

CO4. Analyse Medieval South India

Co5. Maps- important centres in Delhi Sultanate, Mughal Empire under Akbar and Aurangazeb

HISTORTY OF MODERN INDIA

CO1. Evaluate consolidation of English Power in India

CO2. Analyse social religious consciousness in India

CO3. Comparison of Nationalist movements- Pre-Gandhian and Post- Gandhian Era

CO4. Identify Modern Indian Maps- sites of mutiny of 1857, Princely Statesin 1858,major sites of National congress sessions, major sites in Civil Disobedience Movement- Ahmadabad, Dandi, Midnapur, Peshwar

Program Outcomes

A.1. By the senior year, each major will demonstrate ethical use of sources and provide accurate and properly formatted citations in all formal papers for either capstone course.

B.1. Each major will demonstrate in their research project(s) for either capstone course the Honors research semester the abilities: to distinguish between primary and secondary sources; to identify and evaluate evidence.

C.1. Each major will demonstrate, in either capstone course and/or in writing the Honors thesis , the ability to formulate a clear argument, support the argument with appropriate and thorough evidence, and reach a convincing conclusion.

D.1. Each major will demonstrate the ability to compare and contrast different processes, modes of thought, and modes of expression from different historical time periods and in different geographic areas.

E.1. Each major will demonstrate in research topic choices and resulting papers the ability to recognize and articulate the diversity of human experience, including ethnicity, race, language, sex, gender, as well as political, economic, social, and cultural structures over time and space.

Department of Home Science

Course outcome:

BSc I Semester: Textile Fiber

- Students achieve knowledge of modern trends and women contributors in textiles.
- Students understand identifying natural and artificial fabric by its physical and chemical tests available in the market, helps for selection clothing.
- Know the basic construction process of yarn, basic and decorative types of yarn used to create different textured fabrics and types of twist of yarn.
- Learn process of fabric construction, functions of parts of loom, basic and decorative weaves and other types of construction of fabrics as knitting, felting, braiding, netting and lacing.
- Get knowledge of mechanical and chemical finishes utilized to improve quality of fabrics.
- Gain technical knowledge of selection of dyes suitable for different types of fabrics with the methods of dyeing.

BSc II Semester: Fashion Designing

- Learn skills of textile designing with the knowledge of hand and machine printing.
- Students understand importance and scope of fashion designing.
- Contribution of women in the field of fashion.
- Learn traditional Indian textiles and embroideries used for the surface ornamentation in dress designing.
- Acquire the skill to used principles of clothing construction as measurement, drafting, cutting, stitching and finishing.
- Acquire the skill to used principles of clothing construction as measurement, drafting, cutting, stitching and finishing.
- Learn shopping guide for selection of clothing for all ages and problems of consumers with the knowledge of advantages and disadvantages of homemade, tailor made and readymade garment.
- Students are able to launder all types of clothing with special care and storage of clothing.

BSc III Semester: Food Science & Nutrition

- Students will understand importance and scope of nutrition.
- Acquire knowledge of classification and functions of food, food group and novel foods.
- Understand scientific pre preparation techniques.
- Understand scientific pre preparation techniques and principles method of cooking with its' advantages and disadvantages.
- Understand effect of heat on cereals, pulses, dairy and animal food, fruits, vegetables, sugar, jaggery, nuts and oilseeds.
- Get the knowledge of classification, functions, sources, requirement and deficiencies of carbohydrate, proteins, fats, Vitamin (A, D, E, K, B complex and vitamin C), Minerals, Water and fibers.

- Make the students competent in analysis and management of common nutritional problems of the individual, family and community.
- To Know value and importance of water.

- Learn unit of measurement of energy, energy value of food, energy requirement and basal metabolic rate.
- Acquire the skill of principles process, advantages and disadvantages of food preservation.
- Acquire knowledge and skill of food spoilage, food toxicants, food laws and standard, food adulteration and detection methods, food poisoning, food additives, fortification, enrichment, nuetiracuticals, antioxidants and bioflavonoid.

BSc IV Semester: Dietetics

- Students understand history, principles and objectives of studying dietetics.
- Learn skill of menu planning and special feeding methods in hospitals.
- Get the knowledge of methods of nutritional assessment with their merits and demerits.
- Gain the knowledge of meal planning (Balanced Diet), preparing and serving nutritious food considering age, sex and physiological conditions of the individuals for whom the food is made.
- Know the facts of nutritional requirement during infancy, pre-school age, adolescent, adult (man & women), pregnancy, lactation & old age.
- Get the Practice of preventive and curative techniques to overcome the nutritional problems such as under nutrition, over nutrition, malnutrition, anemia, hypertension, heart diseases, diabetes mellitus etc.
- Develop the skill of planning therapeutic diet, special feeding methods in hospitals and modification in diet for different condition of patients.

BSc V Semester Paper I: Human Development

- Students learn and understand about principle of growth and development, effect of heredity and environment and psychoanalytic theory.
- Develop an understanding of reproductive system, conception, pregnancy, test tube babies, types of delivery and advantages and disadvantages of breast and bottle feeding.
- Get the knowledge and understand growth and development of all aspects from infancy to maturity and right child rearing practices.
- Learn and understand discipline, socialization and behavioral problems of the children.
- Acquire knowledge about the methods of child study and sex education.
- Understand types and objectives of preschool education, selection of nursery teacher, role of play, music, science and nature experience, field trips, and parent teacher association.
- Develop skill of teaching in pre-school with self prepared teaching aids.
- To acquire skill of teaching, organization of preschool education.
- Be able to understand the nature of “exceptional” children.

BSc V Semester Paper II: Family Resource Management

- Students learn and understand about importance and scope of family resource management.
- Acquire knowledge of management process and motivating factors of management.
- Get the knowledge of role, responsibilities and qualities of a home maker.
- Learn how to solve problems and techniques of decision making.

- Understand the nature of family in urban and rural context and how home scientists contribute to improve their situation.
- Understand and learn skill of time and energy management with the knowledge of factors affecting them and understand improvement methods.
- Learn to save time and energy as important resources with the help of techniques and principles of work simplification.
- Understand selection, operation and care of labour saving devices.
- Learn to practice skill of money management process with the knowledge of income and expenditure, methods of supplementing family income, family budget and account keeping.
- Gain knowledge and skill of event management consumer education, First aid and home nursing.

BSc VI Semester Paper I: Family Dynamics

- Acquire the Knowledge and skill to lead happy and successful married life.
- Understand the legal aspect of marriage and family.
- Develop an understanding of causes and consequences of marital mal-adjustment.
- Learn about family and make their family happy.
- Get the knowledge to understand teenagers and solve their problems.
- Gain knowledge of Growth and developmental aspects of adolescent to old age.
- Know and able to solve behavioral problems faced by an individual in various stages of life cycle.

BSc VI Semester Paper: Housing & Interior Decoration

- Know importance and need of housing.
- Acquire knowledge of Understand selection of family housing, kitchen plans, lighting, vastu, housing and finance co-corporation.
- Learn to read and draw floor plan of houses for low, middle and high income group.
- Develop skills of estimating cost of housing for low, middle & high income group.
- Acquire the knowledge of using elements and principles of design in interior decoration.
- To acquire the scientific knowledge and skill of residential planning, home decoration, color theories, color combination, selection of curtains, floor coverings and furniture arrangement and create useful and beautiful accessories.
- To get acquainted with the basic knowledge of event management, manners & antiquates, table setting, fresh Flower arrangement & dry arrangement.

Program Specific Outcome:

BSc I Semester- Textile Fibers:

- To achieve knowledge of characteristics of fabrics available in the market & help for selection clothing.
- To learn skills of textile designing.

BSc II Semester- Fashion designing:

- To develop an understanding of application of elements of arts and principles of design in clothing construction and selection.
- To learn dress designing for children and women with surface ornamentation.

BSc III Semester-Food Science and Nutrition:

- To understand scientific methods of cooking as also the care to be taken to avoid food adulteration.
- To acquire knowledge and skill of food conservation, preservation, food spoilage, food toxicants and food laws.
- To make the students competent in analysis and management of common nutritional problems of the individual, family and community.

BSc IV Semester-Dietetics:

- To gain the knowledge of meal planning (Balanced Diet), preparing and serving nutritious food considering age, sex and physiological conditions.
- To practice preventive and curative techniques to overcome the nutritional problems such as under nutrition, over nutrition, malnutrition, anemia, hypertension, heart diseases. diabetes mellitus etc.
- To acquire the knowledge and skill of planning and preparing hospital diet for different patients admitted in hospital or at home by following some restrictions and prescriptions of the food.

BSc V Semester Paper I- Human Development:

- Develop an understanding of conception, pregnancy, growth and development of all aspects from infancy to maturity and right child raring practices.
- To acquire skill of teaching and organization of preschool education and exceptional children.

BSc V Semester Paper II-Family Resource Management:

- To develop skill to practice family resources (time, money and energy) management and work simplification.
- To gain knowledge of selection and care of house hold equipment, consumer education, First aid and home nursing.

BSc VI Semester Paper I-Family Dynamics:

- Be able to understand the importance of various relationships for a healthy family life by trying to solve problems faced by individuals in different stages of life.

BSc VI Semester Paper- Housing and Interior Decoration:

- To acquire the scientific knowledge and skill of residential planning, home decoration and create useful and beautiful accessories.
- To get acquainted with the basic knowledge of event management, manners & antiquates and table setting.

Program Outcome:

- Learn to use their intelligence and ability to enrich their own lives and lives of others in the family, community, nation and world.
- Empowering students acquire scientific knowledge and skills to manage physical, emotional and monetary resources to achieve self and family goals.
- Ensuring high standard of behavioral attitude through achieving well being of the family in te ever changing society.
- Develop qualities of responsible citizenship and find solutions to home and family problems.

- Form intelligent decisions concerning the use of materials and resources and lead a more satisfying personal, family and community life.
- Perform physical work at home-making so as to contribute effectively to achieve furtherance of individual and family goals.
- Gain technical knowledge and information from various branches of Home Science for both personal and professional use.
- Develop quest for excellence in each job they do.

Department of Mathematics

Program Outcomes

1. To apply mathematical concepts and principles to perform computations.
2. Apply mathematics to solve problems.
3. Create, use and analyze graphical representation of mathematical relationships.
4. Communicate mathematical knowledge and understanding.
5. Apply technology tools to solve problems.
6. Perform abstract mathematical reasoning.
7. Learn independently.

Program Specific Outcomes

1. Demonstrate basic manipulative skills in algebra, geometry, trigonometry and calculus.
2. Apply the unifying structure of Mathematics like sets, relations and functions and the relationship among them.
3. Demonstrate proficiency in writing proofs.
4. Communicate mathematical ideas both orally and in writing.
5. Investigate & apply mathematical problems and solutions in a variety of contexts related to science, technology, business & industry and illustrate these solutions using symbolic, numeric or graphical methods.
6. Investigate and solve unfamiliar mathematical problems.

Course Outcomes

Complex Numbers

1. Perform basic algebraic manipulation with complex numbers.
2. Understand the geometric interpretation of complex numbers.
3. To represent a complex number in polar form and on the complex plane.
4. Know the methods of finding the n^{th} roots of a complex numbers and the solutions of simple polynomial equations.

Theory of Equations

1. Obtain quotient and remainder without actual division of a polynomial with a linear factor.
2. Understand the relation between roots and co-efficients of n^{th} degree polynomial.
3. To know the nature of roots of a polynomial.

- Describe the real line as a complete, ordered field,
- Determine the basic topological properties of subsets of the real numbers,
- Use the definitions of convergence as they apply to sequences, series, and functions,
- Determine the continuity, differentiability, and integrability of functions defined on subsets of the real line,
- Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis, and
- Produce rigorous proofs of results that arise in the context of real analysis.
- Write solutions to problems and proofs of theorems that meet rigorous standards based on content, organization and coherence, argument and support, and style and mechanics.

- Determine the Riemann integrability and the Riemann-Stieltjes integrability of a bounded function and prove a selection of theorems concerning integration,
- Recognize the difference between pointwise and uniform convergence of a sequence of functions,

- Illustrate the effect of uniform convergence on the limit function with respect to continuity, differentiability, and integrability, and
- Illustrate the convergence properties of power series.

Math 326 - Upon successful completion of MATH 326 - Differential Equations, a student will be able to:

- Solve differential equations of first order using graphical, numerical, and analytical methods,
- Solve and apply linear differential equations of second order (and higher),
- Solve linear differential equations using the Laplace transform technique,
- Find power series solutions of differential equations, and
- Develop the ability to apply differential equations to significant applied and/or theoretical problems.

  Math 328 - Upon successful completion of Math 328 - Theory of Ordinary Differential Equations, a student will be able to:

- Solve problems in ordinary differential equations, dynamical systems, stability theory, and a number of applications to scientific and engineering problems,
- Demonstrate their ability to write coherent mathematical proofs and scientific arguments needed to communicate the results obtained from differential equation models,
- Demonstrate their understanding of how physical phenomena are modeled by differential equations and dynamical systems,
- Implement solution methods using appropriate technology, and
- Investigate the qualitative behavior of solutions of systems of differential equations and interpret in the context of an underlying model.

Math 330 - Upon successful completion of Math 330 - Abstract Algebra, students will be able to:

- Assess properties implied by the definitions of groups and rings,
- Use various canonical types of groups (including cyclic groups and groups of permutations) and canonical types of rings (including polynomial rings and modular rings),
- Analyze and demonstrate examples of subgroups, normal subgroups and quotient groups,
- Analyze and demonstrate examples of ideals and quotient rings,
- Use the concepts of isomorphism and homomorphism for groups and rings, and
- Produce rigorous proofs of propositions arising in the context of abstract algebra.

Partial Differential Equations, a student will:

- Be familiar with the modeling assumptions and derivations that lead to PDEs,
- Recognize the major classification of PDEs and the qualitative differences between the classes of equations, and
- Be competent in solving linear PDEs using classical solution methods.

Complex Analysis, a student will be able to:

- Represent complex numbers algebraically and geometrically,
- Define and analyze limits and continuity for complex functions as well as consequences of continuity,
- Apply the concept and consequences of analyticity and the Cauchy-Riemann equations and of results on harmonic and entire functions including the fundamental theorem of algebra,

- Analyze sequences and series of analytic functions and types of convergence,
- Evaluate complex contour integrals directly and by the fundamental theorem, apply the Cauchy integral theorem in its various versions, and the Cauchy integral formula, and
- Represent functions as Taylor, power and Laurent series, classify singularities and poles, find residues and evaluate complex integrals using the residue theorem.

Abstract Algebra, students will be able to:

- Assess properties implied by the definitions of groups and rings,
- Use various canonical types of groups (including cyclic groups and groups of permutations) and canonical types of rings (including polynomial rings and modular rings),
- Analyze and demonstrate examples of subgroups, normal subgroups and quotient groups,
- Analyze and demonstrate examples of ideals and quotient rings,
- Use the concepts of isomorphism and homomorphism for groups and rings, and
- Produce rigorous proofs of propositions arising in the context of abstract algebra.

Linear Algebra I, students will be able to:

- Solve systems of linear equations,
- Analyze vectors in R^n geometrically and algebraically,
- Recognize the concepts of the terms span, linear independence, basis, and dimension, and apply these concepts to various vector spaces and subspaces,
- Use matrix algebra and the related matrices to linear transformations,
- Compute and use determinants,
- Compute and use eigenvectors and eigenvalues,
- Determine and use orthogonality, and
- Use technological tools such as computer algebra systems or graphing calculators for visualization and calculation of linear algebra concepts.

Calculus III, a student will be able to:

- Represent vectors analytically and geometrically, and compute dot and cross products for presentations of lines and planes,
- Analyze vector functions to find derivatives, tangent lines, integrals, arc length, and curvature,
- Compute limits and derivatives of functions of 2 and 3 variables,
- Apply derivative concepts to find tangent lines to level curves and to solve optimization problems,
- Evaluate double and triple integrals for area and volume,
- Differentiate vector fields,
- Determine gradient vector fields and find potential functions,
- Evaluate line integrals directly and by the fundamental theorem, and
- Use technological tools such as computer algebra systems or graphing calculators for visualization and calculation of multivariable calculus concepts.

DEPARTMENT OF SAMSKRUTAM

COURSE OUTCOME

B. A I Sem- BASIC SAMSKRUTAM.

1} Exhibit knowledge of morals contained in ancient Sanskrit texts of prose and poetry.

2} Exhibit competent use of, verbs { Parasmaipadi} and nouns in Sanskrit.

3} Ability to translate simple Sanskrit in to Kannada and English language and offer explanation for the same.

4} Gain knowledge of verbs [Parasmaipadi] and nouns.

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B.A II Sem – BASIC SAMSKRUTAM.

1} Gain knowledge of Origin, { UGAMA} attributes,{ LAKSHANA} Structure {SWAROOPA} and development { ABHIVARDHANA} of Sanskrit Prose Literature.{GADYA SAAHITYA}

2} Be able to appreciate the structural variety in prose.

3} Gain knowledge of Verbs{ Aatmanepadi} and pronouns.{SARVANAAMAPADAM}

4} Gain ability to comprehend a passage and answer the questions

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B.A III Sem – BASIC SAMSKRUTAM.

1} Gain knowledge of Origin, { UGAMA} attributes,{ LAKSHANA} Structure {SWAROOPA} and development { ABHIVARDHANA } of Sanskrit Poetry Literature.{PADYA SAAHITYA}

2} Appreciate in Literary style of Kalidasa, including prosody, Figures of speech and aesthetic contained there- in.

3} Understand the philosophy of life as depicted in the text, like meditation, penance and empathy etc.

4} understand phrases. {Swara, vyanjana and visarga sandhi,}

5} Gain ability to comprehend a Sanskrit passage and answer the questions

++

B.A IV Sem BASIC SAMSKRUTAM

1} Understand appreciate the theme of Sanskrit Dramas of Kalidasa and Shudraka.

2} Learn to appreciate how the nature can be seen with aesthetic beauty and sensitivity.

3} Appreciate the concern for the conservation of natural environment as depicted by the dramatists and the need to show the same concern how.

4} Appreciate the noble qualities of decent behavior exhibit at the hermitage in ancient India and how the same qualities are in need now.

5} Understand the theme of the Drama " MruchchakaTika" of Shudraka especially the concept of importance given to innate qualities of good leadership exhibited by Vasantasena though belonging to 'low' prostitute family background.

6} How, in ancient India, an ethos existed that lauded a person irrespective of her social status.

7} Understand terms used to express degrees of comparison.

8} Understand basic etymology of certain Sanskrit words.

B.Sc I Sem – BASIC SAMSKRUTAM.

1} Exhibit knowledge of morals brought out in ancient Sanskrit prose and poetry texts.

2} Exhibit competent use of, verbs and pronouns in Sanskrit.

3}Gain ability to translate simple Sanskrit in to Kannada and English language and offer explanation.

4} Gain knowledge of verbs and pronouns.

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B.Sc II Sem – BASIC SAMSKRUTAM.

1} Gain knowledge of Origin, { UGAMA} attributes,{ LAKSHANA} Structure {SWAROOPA} and development { BELAVANIGE} of Sanskrit Poetry Literature.{PADYA SAAHITYA}

2} Appreciate in Literary style of Kalidasa, including prosody, Figures of speech and aesthetic contained there- in.

3} Understand the philosophy of life as depicted in the text, like meditation, penance and empathy etc.

4} Understand terms used to express degrees of comparison.

5} Understand basic etymology of certain Sanskrit words.

6} Gain ability to comprehend a Sanskrit passage and answer the questions

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B.Sc III Sem – BASIC SAMSKRUTAM.

1} Gain knowledge of Origin, { UGAMA} attributes,{ LAKSHANA} Structure {SWAROOPA} and development { ABHIVARDHANA } of Sanskrit Prose Literature.{GADYA SAAHITYA}

2} Be able to appreciate the structural variety in prose.

3} understand phrases. {Swara, vyanjana and visarga sandhi,}

4} Gain ability to comprehend a passage and answer the questions

++

B.Sc IV Sem – BASIC SAMSKRUTAM.

1} Understand the qualities of Karna, as depicted in the drama “KARNABHAARAM” by Bhasa Kavi a first ever tragedy in Sanskrit.

2} Understand how Karna, despite his excellent qualities, had to face tragedy after tragedy, as fated.

3} Importance of Charity.

4} Know the Drama’s of Bhasa and Kalidasa and be able to understand the differences.

5} Get to know and appreciate Science literature in Sanskrit language in ancient India and appreciate its relevance in today’s world.

6} Understand compound sentences in Sanskrit language.

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B.Com I Sem – BASIC SAMSKRUTAM.

1} Exhibit knowledge of morals contained in ancient Sanskrit texts of prose and poetry.

2} Exhibit competent use of, verbs and pronouns in Sanskrit.

3} Ability to translate simple Sanskrit in to Kannada and English language and offer explanations.

4} Gain understanding of commercial activities as depicted in ancient Sanskrit text

“ SAMSKRUTA SAAHITYE VAANIJYETIHAASAH”

5] Gain knowledge of Verbs and pronouns.

++

B.Com II Sem – BASIC SAMSKRUTAM.

1} Exhibit knowledge of morals contained in ancient Sanskrit texts of drama of Bhasa.

2} Exhibit knowledge of morals contained in ancient Sanskrit texts of prose of Dandi mahakavi.

3} understand commerce in ancient India from Koutilya's Arthashastra and Yajnavalkya smriti.

4} understand phrases. {Swara, vyanjana and visarga sandhi,}

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Program Outcomes.

1} At the end of course, the graduates in Sanskrit language shall exhibit the following attributes:

2} Show competency in the usage of Sanskrit language by reading original texts on various subjects.

3} Gain the ability to comprehend significance of learning classical languages in relation to other classical language.

4} Exhibit curiosity in learning the applications of Sanskrit language in computers.

5} Have gained knowledge of human values and be a responsible citizen, in consonance with the spirit contained in the texts.

6} Be ready to usefully blend their knowledge with the modern world, and strive to excel in competitive examinations and take up further studies and research

7} Strive to uphold the Indian culture and ethos in their walk of life.

8} To strive to achieve an ethos of " VASUDHAIVA KUTUMBAKAM" to bring peace and harmony in the present strife driven world.

9} Be able to imbibe the universal value contained in the aphorisms of scriptures' and use them for the human welfare.

10} Understand and appreciate the high status given to women in ancient society and Try to inculcate those values as appropriate to modern times.

PROGRAMME SPECIFIC OUTCOME. = P S O

1} Appreciate history of Sanskrit Literature.

2} Gain ability to understand literary genre at various stages of Sanskrit language development.

3} Understand the subtle qualities of benefaction, charity and valor.

4} Understand the importance of reading "KUMARA SAMBHAVA MAHAKAVYA OF KALIDAASA KAVI" to appreciate aesthetics as a value in life.

5} Appreciate prosody of 'DANDI KAVI' and use of imagery in the narration of EPICS, SMRUTIS and history of the 7^{th} century Bharata.

6} Get to know the aspects of commercial practices during Vedic, Smruti and Purana periods.

7} Understand and appreciate the Financial transactions were in vogue during Chanakya's period.

8} Be able to understand the way Sanskrit Dramas by Kaalidasa, Bhavabhooti, Bhasa, Bhatta Narayana and Shudraka bring out the quality of human values and, also environmental concerns.

9} Appreciate contributions of women writers and poetesses of the ancient period, to the enrichment of Sanskrit literature.

10} Understand the Science texts in Sanskrit language of ancient period and appreciate how these science principles are under serious scrutiny by the Scientist of the modern era.

Department of Sanskrit

Attainment by an Optional Sanskrit Student at the end of the Graduate level.

Sl.No	Description Of attainment	End of B.A I Year	End of B.A II Year	End of B.A III Year
01	Concept – Students capacity to reproduce what is read	The Students of Sanskrit will be guided to read Sanskrit passage and pronounce correctly. They should be able to understand the language and to translate the passage into English or Kannada. Along with the text –book the students will be encouraged to read the different literary works concerned with the syllabus like Bhasa's ' Swapnavasavadattam" Kalidasa's some cantos of 'Raghuvamsha and Kumarasambhava . They are guided to read the stories of 'Panchatantram' and the stories of Chandamama magazine in Sanskrit.	The Students will be enthused to read and understand the master places of literature like 'pancha mahakavya's, Ramayana, Mahabharata kuvalayananda on Alankara shastra.	The Students will be guided to read and understand the important. Upanishads like Esha, Kena, bRuhadaranyaka, etc. They have to read the history and details of Vedic Literature. Ref Book- Vaidika Sahitya charitre. The students have to study. It will be comparative study and understand. They will be guided to read the Bhagvadgita, Ramayana, and Mahabharata.
02	Speaking	Students will be guided to memories some important beautiful and stanzas. They will be guided to converse in Sanskrit at Bus Stand at Railway Station, at Bank etc. at least 3 minutes.	The communication skill of the students will be developed. They have to speak in Sanskrit for five minutes on current topics like stree sabalikaranam. Vidyarthinaam samasyaa, komusauhardata.	The students will be guided to speak in Sanskrit on philosophical topics like Upanishads. The Geeta. Ramayana and the Mahabharata for ten minutes.

			Etc.	
03	Writing	Students will be guided to write 10 to 20 sentences in Sanskrit on any topic.like kavi, parisara, antarjala etc. They will be guided to write letters in Sanskrit. Personal and courtesy.	The Students will be guided to write sort notes , Reference to context in Sanskrit.	Creative writing in Sanskrit will be encouraged for the students. They will be guided to write poems, stories, etc, in Sanskrit.

Department of Sanskrit.

Details of changes in Syllabus Name of the Faculty – Dr S.H Kakhandaki.

B.A OPTIONAL

Class	Previous Title	Change of Title	Change in Syllabus
B.A I Sem Opt	Sanskrit Kavya sangraha	1]Dashakumara charitam 2] History of Sanskrit Prose Litearature	For B.A I st semester Optional We introduced the study of History of Sanskrit prose literature Eighth Uchchvasa of Dashakumara caritam was prescribed as the text in the view that students clearly understand the concept of prose literature.
B.A II sem Opt	Sanskrit Kavya sangraha	1]Raghuvamsha Second canto 2] History of Sanskrit poetic literature.	For B. A II sem opt study of History of Sanskrit poetic literature was introduced. As the example of poetic "literature II canto of Raghuvamsha was prescribed as text book.
B.A III Sem Opt	1]Kavyaprakasha 2]siddhanta kaumudi 3]History of Sanskrit literature.	1]Pratigna Yougandharayanam History of Sanskrit dramatic literature.	For B.A III sem optional History of Sanskrit dramatic literature was prescribed as the example of dramatic literature Bhasa's Pratigna yougandharayana was prescribe as the text.
B.A IV sem Opt	1]Kavyaprakasha 2]siddhanta kaumudi 3]History of Sanskrit literature	1] Laghu siddhanta kaumudi samjna and Karaka. 2] Madhyamavyayoga Drama of Bhasakavi.	For B.A IV Semester Optional some changes are made. Instead of Siddhanta kaumudi sutras ofLaghu siddhanata kaumudi sutras was prescribed.
B.A V th Sem Opt Paper I	1]Vedic reader for students 2] Katopanishat	1] KavyaPrakasha 2] Hist of Sanskrit Alankara shastra	For B.A V sem opt Paper I History of Sanskrit Alankarashastra was introduced. As the example of Alankarashastra Mammata's Kavyaprakasha was prescribed as the text.
B.A V sem Opt paper II	1] Brahmasutra chatussutri 2] Sankhya kariaka 3] Tarkasangraha	1] Five suktas from Vedic Reader. 2] Vedic Grammar 3] History of Vedic literature.	For B.A V sem opt Paper II History of Sanskrit Vedic Litearature was introduced. As the example of Vedic literature Five suktas from Rugveda was prescribed as the text.

B.A VI th Sem Opt Paper I		1] Tarkasangraha 2]Brahmasutra catussutree	
B.A VI th Sem Opt Paper II		1] Kathopanishhad 2] 14thh sarga of Bhagavdgita	For B.A 6th Sem opt Paper II instead of Sankhyakarika , 14th chapter of the Bhagavdgita sankhya yoga was prescribed

B.A Basic

Class	Previous Title	Change of Title	Change in Syllabus
B.A I Sem Basic	1] Hitopadesha 2] Neetishatakam	1] Seeta hanumato samvadah 2] yo mat bhaktah sa me priyah 3] Mahasena vruttanta	In Basic Sanskrit for B.A first Semester sundarakanda of Ramayana of Valmiki, yomadbhaktaH sa me priyaH of Sri Mahabharata, and mahasenavruttant of kathasaritsagara of Somadeva are Introduced as text. Then only students will come to know the History of Sanskrit poetic Literature, Ramayana, Bhagavdgita, Upanishads, aliong with example. In Grammar portion subanta and tinganta also introduced. Some writing, Reading communication skills also introduced. It is use full to Students beginners of Sanskrit Subject
B.A II Sem Basic	1] Hitopadesha 2] Neetishatakam	1] Snatakopadesha 2] Satyakama jabala 3] Shukanashopadesha	In Basic Sanskrit or B.A II Semester a prose collections are introduced. They are Snatakopadesha of Taittiriya Upanishhad, satyakama jabala of chandogya Upanishad, Shukanasopadesha from kadambari of Banabhatta are Introduced. Then only students will come to know the History of Sanskrit prose Literaure, Upanishads, aliong with example. In Grammar portion kosha and Sankhya also introduced. Some writing, Reading communication skills also introduced. It is use full to Students beginners of Sanskrit Subject.
B.A III Sem Basic	Meghaduta of Kalidasa poorvamegha	6th sarga of Raghuvamsha of Kalidasa	In Basic Sanskrit for B.A III rd Semester sixth sarga of Raguvamsha Mahakavya of Mahakavi Kalidasa is introduced as text. In Grammar portion swara, vyanjana, and visargasandhi are also introduced. From the text the Student will come to know Geographically Indian Historical places, writing skills, Alankaras, Proverbs etc.
B.A IV Sem Basic	Meghaduta of Kalidasa Uttaramegha	1st Sarga of janakiharanakavya of Kumaradasa	In Basic Sanskrit for B.A IVth Semester First Sarga of Janakiharana Mahakavya of Mahakavi Kumaradasa is introduced as text. In Grammar portion Tara Tama pratyayas, and taddhita Pratyayas are also introduced. From the text the Student will come to know Geographically Indian Historical places, writing skills, Alankaras, Proverbs etc.
B.A V Sem	Mlavikagnimitra m natakam	Abhijnana Shakuntalam [1 to 4	In Basic Sanskrit for B.A Vth Semester Abhijnana Shakuntala drama of Mahakavi kalidasa is introduced as text 1 to 4th act.

Basic		act]	In Grammar portion Samasa, Kartari Karmani prayogas are also introduced. From the text the Student will come to know Roopaka,Nataka, Navarasa. Making sentences of Dialogue, writing skills, Alankaras, Proverbs etc.
B.A VI Sem Basic	Mlavikagnimitram natakam	Abhijnana Shakuntalam [5 to 7 act]	In Basic Sanskrit for B.A VIth Semester Abhijnana Shakuntala drama of Mahakavi kalidasa is introduced as text 5 to 7th act. In Grammar portion Samasa, prayogas are also introduced. From the text the Student will come to know Roopaka, Nataka, Navarasa. Making sentences of Dialogue, writing skills, Alankaras, Proverbs etc.

B.Sc Basic Sanskrit

Class	Previous Title	Change of Title	Change in Syllabus
B.Sc I Sem		1] Kalidasa's Kumarasmbhava fifth canto 1] Bhattanarayana's 'veni samaram' drama first act	In B.Sc Basic Sanskrit for First Semester Kalidasa's Kumarasmbhava fifth cantoand Bhattanarayana's 'veni samaram' drama is introduced. Simple Grammar also introduced along with Texts. The Sutdents will know about Poetic aesthetics. They show interest to learn Sanskrit.
B.Sc II Sem		1]'Dashakumaracharita of Dandikavi and 2] MruchchakaTika natakam of Shudraka 1st act	In B.Sc Basic Sanskrit second semester 'Dashakumaracharita of Dandikavi and mruchchakaTika natakam of Shudraka 1st act introduced. Students will know about Gadyasahitya, and natakasahitya, navarasa, katha Sahitya, morala literature etc.
B.Sc III Sem		1] Neetishataka[1to 5] paddhati of Bhartruhari, 2] Pancharatram natakam of Bhasakavi	In B.Sc Basic Sanskrit III semester Neetishataka[1to 5] paddhati of Bhartruhari, Pancharatram natakam of Bhasakavi. Students will come to know the moral, lokaneeti, vyavaharaneeti, paropakara, sajjana, friendship and Badatana.
B.Sc IVSem		1] Nitishhataka's another five paddhati 2] Bhasa's Karnabharam Nataka	In B.sc Basic Sanskrit VI Semster Nitishhataka's another five paddhati and Bhasa's Karnabharam Nataka. The students will come to know Daiva, Krma, dhairya, Manashaurya, and sacrificing, charity, Braveryness etc. How to behavior should be in the society, what are the real rituals, meaning, performing etc,
In Internal assessment, to marks were allotted for Sanskrit Communication, Reading the Sanskrit lessons and writing the compositions in Sanskrit.			

As the Member of BOARD Of STUDIESE in Sanskrit the following innovations were made.

Innovations in Design of Curriculum

1] In Internal assessment, to marks were allotted for Sanskrit Communication, Reading the Sanskrit lessons and writing the compositions in Sanskrit.

2] In Optional Sanskrit for First Semesters a prose work "vishruta charitam" is introduced. History of Sanskrit Prose Literature is also introduced along with prose – work. Then only Students will come to know the istory of Sanskrit Prose Literature along with example.

3] In Optional Sanskrit for II Semester II Canto of RaguvaMsha is introduced as Text. "The History of Sanskrit Poetic Litearature" is also introduced along with this text. In Grammar portion Chandas is also introduced. It is useful for Poetry.

4] In Optional Sanskrit for Third Semester a drama "pratijna yaogandharayana" is introduced. Istory of Sanskrit Dramatic Literature is also introduced along with this text.

5] In optional Sanskrit for Fifth Semester Kavyaprakasha of Mammata is introduced as Text. "History of Alankara Shastra" is also introduced along with this Text.

6] In Optional Sanskrit Sixth Semester Nyaya Darshana, Sankhya Darshana, and Sankaradarshana introduced as text. Upanishad Darshana and some "Rugveda Sookta also introduced Vedic Literature along with this Text.

B.Com I Semester

1] In Internal assessment, to marks were allotted for Sanskrit Communication, Reading the Sanskrit lessons and writing the compositions in Sanskrit.

2] In Basic Sanskrit for Semester a collections of prose and poetry is introduced. Commerce in Ramayana Mahabharata period is also introduced along with text. Then only the students will come to know the ancient commerce along with the example.

3] In Second semester collections of Kautilya's "Arthashastra", Yajnavalkya's Vyavahraadhyaya, Vyasa maharshi's Mahabharata. Business Trade, Commerce, Tax system, partnership Business etcare introduced. It is use full to Sanskrit Students.

B.Sc

1] In Internal assessment, to marks were allotted for Sanskrit Communication, Reading the Sanskrit lessons and writing the compositions in Sanskrit.

2] In B.Sc Basic Sanskrit for First Semester Kalidasa's Kumarasmbhava fifth canto is introduced. Simple Grammar also introduced along with Texts. The Sutdents will know about Poetic aesthetics. They show interest to learn Sanskrit.

3] In B.Sc Basic Sanskrit second semester Bhattanarayana's 'veni samaram' drama and 'dashakumaracharita of Dandikavi introduced. Students will know about Gadyasahitya, and natakasahitya, navarasa, katha Sahitya, morala literature etc.

4] In B.Sc Basic Sanskrit III semester Neetishataka[1to 5] paddhati of Bhartruhari, Mruccchakatikanataka. Students will come to know the moral, lokaneeti, vyavaharaneeti, paropakara, sajjana, friendship and Badatana.

5] In B.sc Basic Sanskrit VI Semster Nitishhataka's another five paddhati and Bhasa's Karnabharam Nataka. The students will come to know Daiva, Krma, dhairya, Manashaurya, and sacrificing, charity, Braveryness etc. How to behavior should be in the society, what are the real rituals, meaning, performing etc,

B.A

1] In Internal assessment, 10 marks were allotted for Sanskrit Communication, Reading the Sanskrit lessons and writing the compositions in Sanskrit.

2] In Basic Sanskrit for B.A first Semester sundarakanda of Ramayana of Valmiki, yomadbhaktaH sa me priyaH of Sri Mahabharata, and mahasenavruttant of kathasaritsagara of Somadeva are Introduced as text. Then only students will come to know the History of Sanskrit poetic Literature, Ramayana, Bhagavdgita, Upanishads, aliong with example.

In Grammar portion subanta and tinganta also introduced. Some writing, Reading communication skills also introduced. It is use full to Students beginners of Sanskrit Subject.

3] In Basic Sanskrit or B.A II Semester a prose collections are introduced. They are Snatakopadesha of Taittiriya Upanishhad, satyakama jabala of chandogya Upanishad, Shukanasopadesha from kadambari of Banabhatta are Introduced. Then only students will come to know the History of Sanskrit prose Literaure, Upanishads, aliong with example. In Grammar portion kosha and Sankhya also introduced. Some writing, Reading communication skills also introduced. It is use full to Students beginners of Sanskrit Subject.

4] In Basic Sanskrit for B.A III rd Semester sixth sarga of Raguvamsha Mahakavya of Mahakavi Kalidasa is introduced as text. In Grammar portion swara, vyanjana, and visargasandhi are also introduced. From the text the Student will come to know Geographically Indian Historical places, writing skills, Alankaras, Proverbs etc.

5] In Basic Sanskrit for B.A IVth Semester First Sarga of Janakiharana Mahakavya of Mahakavi Kumaradasa is introduced as text. In Grammar portion Tara Tama pratyayas, and taddhita Pratyayas are also introduced. From the text the Student will come to know Geographically Indian Historical places, writing skills, Alankaras, Proverbs etc.

6] In Basic Sanskrit for B.A Vth Semester Abhijnana Shakuntala drama of Mahakavi kalidasa is introduced as text 1 to 4^{th} act. In Grammar portion Samasa, Kartari Karmani prayogas are also introduced. From the text the Student will come to know Roopaka,Nataka, Navarasa. Making sentences of Dialogue, writing skills, Alankaras, Proverbs etc.

7] In Basic Sanskrit for B.A VIth Semester Abhijnana Shakuntala drama of Mahakavi kalidasa is introduced as text 5 to 7^{th} act. In Grammar portion Samasa, prayogas are also introduced. From the text the Student will come to know Roopaka, Nataka, Navarasa. Making sentences of Dialogue, writing skills, Alankaras, Proverbs etc.

General Data

A] Achievement – 100% Result of all branches, with increased number of distinctions, Golda medals, and Ranks.

B] Difficulties faced – Problem of Strength - Strength is progressively decreasing also to various reasons, like –

1] Attractions towards professional course like D.Ed, B.B.A, B.C.A, B.E etc.

2] Less opportunities for the Jobs.

3] Subject Combination by K. S. w. U is not Satisfactory. Sanskrit is combined with all Languages. Like Kannada, English, Hindi.

4] Strength is decreased in Pre University college in Sanskrit. hence it affect the strength in Degree college .

C] Suggestions for improvement –

I request the authorities University, and Govt to look in to the matter Seriously and give guidelence to improve the strength. Like-

A] Making the Sanskrit Subject compulsory for high school, and P U College.

B] Creating the Job opportunities in various Department.

C] By giving guidelines to the University to modify the subject combination by encouraging the Sanskrit subject. S

COURSE OUTCOMES/ PROGRAMME OUTCOMES OF B.SC., ZOOLOGY

B.Sc. Ist semester: BIOLOGY OF NON-CHORDATE

COURSE OUTCOMES:

- Came to knowing the basic concept of biosystematics and procedure in taxonomy.
- Identified the taxonomic status of the entire non-chordates up to annelids and discuss the phylogeny of model of the animals.
- Described the general biology of few selected non-chordates
- Know about some of the important and common protozoan's, nemethehelminthes of parasitic nature causing diseases in human beings.
- Understand the importance of metamerism in annelids.
- Understand the diversity and classification and functional aspects of different systems of phylum Arthropod, Mollusca and Echinodermata.
- Described the social life and economic importance of insects.
- Described the advanced characteristic features of cephalopod molluscs.
- Came to know that the resemblance and evolutionary significance of larval forms of echinoderms.

COURSE OUTCOMES: LAB - BIODIVERSITY OF INVERTEBRATE

- Understand the anatomy and physiology of invertebrate animals by dissection.
- Described the structural study and mounting of organs.
- Came to knowing the rules of taxonomy and the principle of animal classification.
- Understand the diversity morphology, biological characters and taxonomical importance some selected museum specimens of different animal groups.

B.Sc.IInd semester: BIOLOGY OF CHORDATES

COURSE OUTCOMES: BIODIVERSITY OF CHORDATES

- Identified the taxonomic status of the entire chordates and discussed the evolutionary model of the group.
- Imparted the knowledge on ecology of some important fishes, amphibian's reptiles, birds and mammals.
- Impart knowledge in comparative anatomy and development systems of chordates.
- Make able to discuss some and very important phenomena in Chordates.
- Know about the conservation and management strategies of the chordate fauna.

COURSE OUTCOMES: LAB – BIOLOGY OF CHORDATE

- Understand the anatomy and physiology of vertebrate animals by dissection.
- Described the structural study and mounting of organs.
- Came to knowing the rules of taxonomy and the principle of animal classification.
- Understand the diversity morphology, biological characters and taxonomical Importance some selected museum specimens of different animal groups

B.Sc. IIIrd semester APPLIED ZOOLOGY

COURSE OUTCOMES – POULTRY:

- Described the concept, aim, and scope of poultry industries
- Understand the various types and methods of poultry practices.
- Understand the physiology and reproductive mechanisms of important fishes.
- Understand the modern techniques and methods of fishery industries.
- Attained knowledge about important breeds of poultry birds and importance of
- value of poultry products
- Understand the various types and methods of poultry practices.
- Understand the modern techniques and methods of fishery industries.
- Attained knowledge about importance of poultry

COURSE OUTCOMES - APICULTURE

- Described the concept, aim, and scope apiculture industries
- Understand the various types and methods of apiculture practices.
- Understand the morphology and physiology mechanisms of honey bees.
- Attained knowledge about important breeds of honey bees and importance of value of honey bees products
- Understand the modern techniques and methods of apiculture industries.
- Attained knowledge about importance of poultry

COURSE OUTCOMES- SERICULTURE

- Described Taxonomy, Morphological sex differences in larva and adult.
- Understand the culture of mulberry plants
- Came to know about the culture methods of *B.mori and* mulberry silk
- Described the diseases and pests of *B.mori.*
- Studied the quality of silk, silk gland and marketing strategies of silk.

- **COURSE OUTCOMES- VERMIICULTURE**
- Described the concept, aim, and scope of vermiculture industries
- Understand the various types and methods of vermiculture practices.
- Understand the mechanisms of vermicompostand its importance.
- Understand the modern techniques and methods o vermiculture industries.
- Attained knowledge about importance of value of vermiculture products
- Understand the various types and methods of vermiculture practices.
- Understand the modern techniques and methods of industries.
- Attained knowledge about importance of vermiculture

COURSE OUTCOMES- PEARL- CULTURE

- Described the concept, aim, and scope of pearl culture industries
- Understand the various types and methods of pearl culture practices.
- Understand the mechanisms of pearl culture and its importance.
- Understand the modern techniques and methods pearl culture industries.
- Attained knowledge about importance of value of pearl culture products
- Understand the various types and methods of pearl culture practices.
- Understand the modern techniques and methods of pearl culture industries.
- Attained knowledge about importance of pearl culture

COURSE OUTCOMES- DAIRY SCIENCE

- Described the concept, aim, and scope of dairy industries
- Understand the various types and methods of dairy ipractices.
- Understand the mechanisms dairy and its importance.
- Understand the modern techniques and methods of dairy industries.
- Attained knowledge about importance of value of dairy products
- Understand the various types and methods of dairy practices.
- Understand the modern techniques and methods of dairy industries.
- Attained knowledge about importance of dairy

COURSE OUTCOMES – LAB: APPLIED ZOOLOGY

POULTRY: By visiting poultry farms gained knowledge how to establish the poultry industries

APICULTURE: By visiting Apiary farms gained knowledge how to establish the Apiculture industries

SERICULTURE: By visiting silkworm rearing farms and moriculture plantation

gained knowledge how to establish the sericulture industries

VERMIICULTURE: By visiting vermiculture farms *gained* knowledge how to establish the vermiiculture industries

DAIRY SCIENCE: By visiting Dairy farms gained knowledge how to establish the dairy industries

B.Sc.IVth semester : ANIMAL PHYSIOLOGY and BIOCHEMISTRY
COURSE OUTCOMES - ANIMAL PHYSIOLOGY and BIOCHEMISTRY

- Understand about the composition of food and mechanism of digestion absorption and assimilation.
- Attained knowledge of respiration and excretion and understand the mechanism of transport of gages and urine formation.
- Described the mechanism of circulation and composition of blood
- Knowledge of neuromuscular coordination and the mechanism of osmoregulation in animals and endocrine system and their function is attained.
- Comprehended the energy source, chemical bonds and the principles of thermodynamic
- Attained the knowledge of macromolecule such as carbohydrates, protein and fat, their types and significance.
- Described the enzymes, mechanism of enzyme action and factors affecting the enzyme activity
- Understand the types and importance of vitamins
- Understand the knowledge of Immunue system and its biological significance
- Understand the knowledge of endocrinology and endocrine glands and its biological significance

COURSE OUTCOMES – LAB - ANIMAL PHYSIOLOGY, BIOCHEMISTRY,

- Attained knowledge of qualitative analysis of urine, blood glucose .
- Skill development for the observation of blood cells and haematine crystals.
- Understand the working principle and applications of physiological instrument

B.Sc.Vth semester: PAPER (5.1) GENETICS

COURSE OUTCOMES - GENETICS

- Understand the theories of classical genetics and blood group inheritance in man
- Understand the theories Mendalian genetics of monohybrid, dihybrid, multiple alleles, sex determination, and sex linked inheritance blood group inheritance in man
- Described the genetic variation through linkage and crossing over, chromosomal aberrations and sex determination.

- Understand the genetic defects and inborn errors of metabolism
- Understand the molecular structure of genetic materials and understand the
- Understand the concept of protein synthesis
- mechanism of gene expression and regulation character formation
- Attained knowledge the history, branches and scope of biotechnology and gene transfer technique.
- Understand the recombinant technology, gene integration into the vector and with host genome and creation of transgenic animals.
- Understand the principle and applications of biotechnology techniques – DNA finger printing. plotting technique micro array.

B.Sc.Vth semester: PAPER (5.1) GENETICS

LAB OUTCOMES - GENETICS

- Understand the theories of classical genetics and blood group inheritance in man
- Understand the theories Mendalian genetics of monohybrid, dihybrid, multiple alleles, sex determination, and sex linked inheritance blood group inheritance in man
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- Understand the concept of protein synthesis
- mechanism of gene expression and regulation character formation
- Attained knowledge the history, branches and scope of biotechnology and gene transfer technique.
- Understand the recombinant technology, gene integration into the vector and with host genome and creation of transgenic animals.
- Understand the principle and applications of biotechnology techniques – DNA finger printing.

B.Sc.Vth semester: PAPER (5.2)

ANIMAL BEHAVIOUR, EVOLUTION AND PALEONTOLOGY

- Understand the definitions of animal behavior with examples
- Understand the social organization factors and characters of termite, honey bees and monkey
- Understand the migratory behaviour and its types in fishes and birds

- Understand the biological clock, chronobiology and biological rhythms and its types with examples
- Understand the courtship behaviour principles and courtship in scorpion and peacock
- Understand the parental care behaviour and its types in fishes and amphibians with examples
- Understand the colouration and mimicry types with examples
- Understand the theory of Lamarck's and Darwin's theory of evolution and synthetic theory of evolution
- Obtained the knowledge about concept of species
- Obtained the knowledge of fossils and fossilization
- Understand the evolution of man

B.Sc.Vth semester: PAPER (5.2)

LAB OUTCOMES: ANIMAL BEHAVIOUR, EVOLUTION AND PALEONTOLOGY

- Understand the definitions of animal behavior with examples by live examples and videos
- Understand the social organization factors and characters of termite, honey bees and monkey by observing live and watching videos
- Understand the migratory behaviour and its types in fishes and birds by watching videos
- Understand the biological clock, chronobiology and biological rhythms and its types with examples by watching videos
- Understand the courtship behaviour principles and courtship in scorpion and peacock by watching videos
- Understand the parental care behaviour and its types in fishes and amphibians with examples by watching videos
- Understand the colouration and mimicry types with examples by watching videos
- Obtained the knowledge of fossils and fossilization by videos
- Understand the evolution of man by observing posters of evolutionary trees of man

B.Sc.VIth semester: PAPER (6.1)

CELL BIOLOGY AND DEVELOPMENTAL BIOLOGY

COURSE OUTCOMES – CELL BIOLOGY AND DEVELOPMENTAL BIOLOGY

- Understand the structure of cells and cell organelles in relation to the functional aspects and understanding of the working principles and applications of microscopes
- Described the composition of prokaryotic and eukaryotic cells.

- Understand the structure and functions of chromosome; mitotic and meiotic cell divisions and their significance
- Understand the properties and characters of cancer cells. applications of pH meter, centrifuge, chromatography and electrophoresis.
- Understand the process of development of animals.
- Understand the process of organogenesis of selected organs, development of extra embryonic membrane and the nature and physiology of placenta.
- Came to know the inducer and inductor role in embryogenesis and knowledge about
- Metamorphosis and the process of regeneration.
- Understand the reproductive system of human being and menstrual cycle

COURSE OUTCOMES LAB - CELL BIOLOGY AND DEVELOPMENTAL BIOLOGY

- Acquired knowledge of principles and working mechanisms of microscopes
- Understand the mechanism of mitosis and meiosis.
- Preparation, direct observation and appreciation of sperm motility and different stages of
- Chick embryo development and placentaions of animals.
- Attained knowledge about in-vitro fertilization and embryo transfer
- Understand the principle and applications of biotechnology techniques – DNA finger printing, plotting technique micro array.

B.Sc VIth semester: (6.2)

ENVIRONMENTAL BIOLOGY AND ZOOGEOGRAPHY& WILD LIFE MANAGEMENT

COURSE OUTCOMES :

ENVIRONMENTAL BIOLOGY AND ZOOGEOGRAPHY& WILD LIFE MANAGEMENT

- Understand and appreciate the environment and ecological services of life on earth.
- Understand the abiotic factors of environment
- Acquired knowledge of ecosystem, food chain, energy flow and productivity and
- understand pond as a model ecosystem
- Imparted knowledge of habitat ecology, pollution and bioremediation of polluted Environment.
- Understand zoogeographical realms of world and characters of fauna
- Understand the geographical distribution of animal
- Understand distribution of wild life of different regions in India.

- Understand the wild life problems
- Understand wild life conservation act, CITES , CBD and government non govrment organizations

B.Sc VIth semester: (6.2)

LAB OUTCOMES:

ENVIRONMENTAL BIOLOGY AND ZOOGEOGRAPHY& WILD LIFE MANAGEMENT

- Understand and appreciate the environment and ecological services of life on earth.
- Understand the abiotic factors of environment
- Acquired knowledge of ecosystem, food chain, energy flow and productivity and understand pond as a model ecosystem by practical experiment by visiting ponds
- Understand zoogeographical realms of world and characters of fauna by observing maps and charts
- Understand the geographical distribution of animal by maps and charts
- Understand distribution of wild life of different regions in India by maps and charts
- Understand wild life conservation act, CITES , CBD and government non government organizations by collecting information

PROGRAM SPECIFIC OUTCOMES: PSO OF B. SC., ZOOLOGY

PSO of **B.Sc. Ist semester: BIOLOGY OF NON-CHORDATE**

- Demonstrated a broad understand of animal diversity, including knowledge of the
- Scientific classification and evolutionary relationships of major groups of animals.

PSO of **B.Sc. IIst semester: BIOLOGY OF CHORDATE**

- Demonstrated a broad understand of animal diversity, including knowledge of the
- Scientific classification and evolutionary relationships of major groups of animals.

PSO of **B.Sc. IIIrd semester APPLIED ZOOLOGY**

- Understand the applied biological sciences or economic Zoology such as sericulture,
- Apiculture, aquaculture, poultry dairy, vermiculture and pearl culture for their career opportunities

PSO of **B.Sc.IVth semester : ANIMAL PHYSIOLOGY and BIOCHEMISTRY**

- Recognized the relationships between structure and functions at different levels of

biological organization (e.g., molecules, cells, organs, organisms, populations, and species) for the major groups of animals.

- Characterized the biological, chemical, and physical features of environments e.g.,
- function and interact with respect to biological, chemical and physical processes in natural and impacted environments.
- Explained how organisms function at the level of the gene, genome, cell, tissue, organ and organ-system. Drawing upon this knowledge, they are able to give specific examples of the physiological adaptations, development, reproduction and behavior of different forms of life.

PSO Of B.Sc.Vth Semester: Paper (5.1) Genetics

PSO Of B.Sc.Vth Semester: Paper (5.2) -Animal Behaviour, Evolution And Paleontology

Pso Of B.Sc.Vith Semester: Paper (6.1)- Cell Biology And Developmental Biology

Pso Of B.Sc Vith Semester: (6.2) -Environmental Biology And Zoogeography& Wild Life Management

B.Sc. Botany

Programme Outcomes

1: Knowledge and understanding of: 1. The range of plant diversity in terms of structure, function and environmental relationships. 2. The evaluation of plant diversity. 3. Plant classification and the flora of Karnataka. 4. The role of plants in the functioning of the global ecosystem. 5. A selection of more specialized, optional topics. 6. Statistics as applied to biological data.

2: Intellectual skills – able to: 1. Think logically and organize tasks into a structured form. 2. Assimilate knowledge and ideas based on wide reading and through the internet. 3. Transfer of appropriate knowledge and methods from one topic to another within the subject. 4. Understand the evolving state of knowledge in a rapidly developing field. 5. Construct and test hypothesis. 6. Plan, conduct and write a report on an independent term project.

3: Practical skills: Students learn to carry out practical work, in the field and in the laboratory, with minimal risk. They gain introductory experience in applying each of the following skills and gain greater proficiency in a selection of them depending on their choice of optional modules. 1. Interpreting plant morphology and anatomy. 2. Plant identification. 3. Vegetation analysis techniques. 4. A range of physiochemical analyses of plant materials in the context of plant physiology and biochemistry. 5. Analyze data using appropriate statistical methods and computer packages. 6. Plant pathology to be added for sharing of field and lab data obtained.

4: Transferable skills: 1. Use of IT (word-processing, use of internet, statistical packages and databases). 2. Communication of scientific ideas in writing and orally. 3. Ability to work as part of a team. 4. Ability to use library resources. 5. Time management. 6. Career planning.

5. Scientific Knowledge: Apply the knowledge of basic science, life sciences and fundamental process of plants to study and analyze any plant form.

6. Problem analysis: Identify the taxonomic position of plants, formulate the research literature, and analyze non reported plants with substantiated conclusions using first principles and methods of nomenclature and classification in Botany.

7: Design/development of solutions: Design solutions from medicinal plants for health problems, disorders and disease of human beings and estimate the phytochemical content of plants which meet the specified needs to appropriate consideration for the public health

8: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and development of the information to provide valid conclusions.

9: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern instruments and equipments for Biochemical estimation, Molecular Biology, Biotechnology, Plant Tissue culture experiments, cellular and physiological activities of plants with an understanding of the application and limitations.

10: The Botanist and society: Apply reasoning informed by the contextual knowledge to assess plant diversity, its importance for society, health, safety, legal and environmental issues and the consequent responsibilities relevant to the biodiversity conservation practice.

11: Environment and sustainability: Understand the impact of the plant diversity in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

12: Ethics: Apply ethical principles and commit to environmental ethics and responsibilities and norms of the biodiversity conservation.

13: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
14: 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.
15: 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.
16: 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.

Programme specific Outcomes of B.Sc. Botany

1. Critically evaluation of ideas and arguments by collection relevant information about the plants, so as recognize the position of plant in the broad classification and phylogenetic level.
2. Identify problems and independently propose solutions using creative approaches, acquired through interdisciplinary experiences, and a depth and breadth of knowledge/expertise in the field of Plant Identification.
3. Accurately interpretation of collected information and use taxonomical information to evaluate and formulate a position of plant in taxonomy.
4. Students will be able to apply the scientific method to questions in botany by formulating testable hypotheses, collecting data that address these hypotheses, and analyzing those data to assess the degree to which their scientific work supports their hypotheses.
5. Students will be able to present scientific hypotheses and data both orally and in writing in the formats that are used by practicing scientists.
6. Students will be able to access the primary literature, identify relevant works for a particular topic, and evaluate the scientific content of these works.
7. Students will be able to apply fundamental mathematical tools (statistics, calculus) and physical principles (physics, chemistry) to the analysis of relevant biological situations.
8. Students will be able to identify the major groups of organisms with an emphasis on plants and be able to classify them within a phylogenetic framework. Students will be able to compare and contrast the characteristics of plants, algae, and fungi that differentiate them from each other and from other forms of life.
9. Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth. They will be able to use specific examples to explicate how descent with modification has shaped plant morphology, physiology, and life history.
10. Students will be able to explain how Plants function at the level of the gene, genome, cell, tissue, Flower development. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and mode of life cycle followed by different forms of plants.
11. Students will be able to explain the ecological interconnectedness of life on earth by tracing energy and nutrient flow through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.
12. Students will be able to demonstrate proficiency in the experimental techniques and methods of analysis appropriate for their area of specialization within biology.

Course Outcomes: PSOs of B.Sc. Botany:

- B.Sc. Semester-I

Paper-I: Viruses, Bacteria, Cyanobacteria. Algae, Fungi, Lichens and Plant pathology:

On completion of the course, students are able to:

1. Understand the diversity among Algae.
2. Know the systematic, morphology and structure, of Algae. Understand the life cycle pattern of Algae.
3. Understand the useful and harmful activities of Algae.
4. Understand the Biodiversity of Fungi
5. Know the Economic Importance of Fungi
6. Know the systematic position of cyanobacteria. Understand the economic importance and their life cycle pattern.
7. Understand the diversity of microbes and their economic importance.
8. Learn about the plant pathology (diseases) caused by microbes.
9. Know about lichens and their economic importance.

- B.Sc Semester-II:

Paper-II: Bryophytes, Pteridophytes, paleobotany and gymnosperms:
On completion of the course, students are able to:
1. Understand the morphological diversity of Bryophytes and Pteridophytes and Gymnosperms and fossil plants.
2. Understand the economic importance of the Bryophytes and Pteridophytes and Gymnosperms and fossil plants.
3. Understand the anatomical structure of Bryophytes and pteridophytes and gymnosperms and fossil plants.
4. Know the evolution of Bryophytes and Pteridophytes and Gymnosperms.

- B.Sc. Semester- III

Paper- III: Morphology, Taxonomy of Angiosperms and Economic Botany.
On completion of the course, students are able to:

1. Know about vegetative structures of angiosperms.
2. Learn to draw the floral diagram and write the floral formula of angiosperms.
3. Understand the economic important plants.
4. Know about different parts of plants and its modifications.
5. Know about differentiating monocots and dicots.

- B.Sc Semester-IV

Paper- IV: Ecology, Environment Biology, Conservation and Management of Plant resources.
On completion of the course, students are able to:
1. Understand about ecology and its components.
2. Know about plant succession (development stages of plants).
3. Know about the activities of various organizations to conserve the ecosystem.
4. Understand about the various plant communities.
5. Understand the plant genetics and their management.
6. Know about ecological/natural disasters and their preventive measures.

- B.Sc Semester- V

Paper- V: Histology, Anatomy, Palynology and Embryology.

On completion of the course, students are able to:

1. Understand the scope & importance of Anatomy and embryology.
2. Know various tissue systems.
3. Understand the normal and anomalous secondary growth in plants and their causes.
4. Perform the techniques in anatomy.
5. With respect to recent knowledge students should know about the different tools in the taxonomy so as to relocate the phylogenetic position of plant or taxa.
6. Understand major evolutionary trends in various parts of angiospermic plants
7. Know the methods of pollination and fertilization.
8. Know fertilization, endosperm and embryogeny.
9. Know the ovule and anther development.

Paper VI: Cytology, Genetics and Biostatistics.

On completion of the course, students are able to:

1. Understand the eukaryotic cell cycle and mitotic and meiotic cell division
2. Know the structure and organization of cell membrane
3. Learn the process of membrane transport and membrane models
4. Know the Mendelian and Neo-mendelian genetics
5. To study the phenomenon of dominance, laws of segregation, independent assortment of genes.
6. To understand the different types of genetic interaction, incomplete dominance, codominance, inter allelic genetic interactions, multiple alleles and quantitative inheritance etc.
7. Gain knowledge about "Cell Science".
8. Understand Cell wall Plasma membrane, Cell organelles and cell division.
10. Learn the scope and importance of molecular biology.
11. Understand the biochemical nature of nucleic acids, their role in living systems, experimental evidences to prove DNA as a genetic material.
12. Understand the process of synthesis of proteins and role of genetic code in polypeptide formation.
13. Understand the role plants in human welfare.
14. Solve the problems based on biostatistics.

- B.Sc Semeter-VI

Paper-VII: Plant Breeding, Biotechnology and Evolution.

On the completion of this course, students are able to:

1. Understand the objectives and principles of plant breeding.
2. Understand the plant breeding techniques and its different methods.
3. Learn sequence of emasculation techniques.
4. Do the various types of plant propogation.
5. Learn the process and management of Nursery(plant) .
6. Learn the evolution of Lamarkism , Darwinism and mutation theory.
7. Learn about scope of Biotechnology and r- DNA Technology.
8. Know about the applications of Biotechnology in various fields.

9. Learn the technique of DNA finger printing and its applications.

10. Learn the techniques of Tissue Culture and its scope.

Paper-VIII: Plant Physiology and stress physiology.

On completion of the course, students are able to:

1. Know importance and scope of plant physiology.

2. Understand the plants and plant cells in relation to water.

3. Understand the process of photosynthesis in higher plants with particular emphasis on light and dark reactions, C3 and C4 pathways.

4. Understand the respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.

5. Learn about the movement of sap and absorption of water in plant body

6. Understand the plant movements.

7. Learn and understand about mineral nutrition in plants.

8. Understand the growth and developmental processes in plants.

9.Understand the process of translocation of solutes in plants

10. Know the nitrogen metabolism and its importance.

Department of Psychology

Program Outcomes

1. The students will apply the knowledge of Psychology in day to day life.
2. The students will assert the importance of behaviour in the present world.
3. The will be competent in all the aspects of human behaviour.
4. The students will have the skills and aptitudes of Psychology.
5. The students are able to do research and analytical skills and methods of Psychology.
6. The students are ready for the higher courses like M.A, M.Sc. in Psychology.

Course Outcomes

1. After the first semester the students have the knowledge of general aspects of human behaviour viz. behaviour, nervous system, sensation, attention, perception and learning.
2. After the second semester the students have the knowledge of human behaviour viz.-memory, forgetting, thinking, emotion, motivation, intelligence etc.
3. After the third semester the students have the knowledge of development of human life from prenatal stage to childhood.
4. After the fourth semester the students have the knowledge of development of human life span from puberty to old age and death.
5. After the fifth semester the students have the knowledge of social aspects of behaviour and the knowledge of behaviour in industry and organizations.
6. After the sixth semester the students have the knowledge of abnormal behaviour and disorders and also have the knowledge and skills of counselling for the behaviour problems.

BA Optional Kannada

Program Learning Outcomes:

Students will demonstrate the ability to

- Read closely in a variety of forms, techniques, formations, and modes, and articulate the value of close reading in the study of Kannada literature.
- Show familiarity with major literary works, genres, periods, and critical approaches to Kannada Language and Literature, and Literary Criticism.
- Write plainly, efficiently, and creatively, and regulate writing style appropriately to the content, the context, and nature of the subject.
- Develop and carry out research projects, and locate, evaluate, organize, and incorporate information effectively.
- Articulate the relations among culture, history, and texts.

Programme Specific learning outcomes:

- Reading: Students will become talented, active readers who appreciate ambiguity and complexity, and who can articulate their own interpretations with an awareness and curiosity for other perspectives with respective Old/ Middle & Modern Kannada language and literature.

- Writing skills and process: Students will be able to write effectively for a variety of professional and social settings. They will practice writing as a process of motivated inquiry, engaging other writers' ideas as they investigate and develop their own. And they will develop an awareness of and confidence in their own say as a writer.

- Sense of Genre: Students will develop an appreciation of how the formal elements of language and genre shape meaning. They will recognize how writers can transgress or subvert generic expectations, as well as fulfill them. And they will develop a facility at writing in appropriate genres for a variety of purposes and audiences.

- Culture and History: Students will gain knowledge of the major traditions of literatures written in English, and an appreciation for the diversity of literary and social voices within–and sometimes marginalized by–those traditions, with respect to women. They will develop an ability to read texts in relation to their historical and cultural contexts.

- Critical Approaches: Students will develop the ability to express their own ideas as informed opinions that are in dialogue with a larger community of interpreters, and understand how their own approach compares to the variety of critical and theoretical approaches.

- Research Skills: Students will be able to identify topics and formulate questions for productive inquisition and perception. And they will use their chosen sources effectively in their own writing, quoting all sources appropriately.

- Oral communication skills: Students will demonstrate the skills needed to participate in a conversation that builds knowledge collaboratively: listening carefully and respectfully to others' viewpoints; articulating their own ideas and questions clearly. Students will be able to prepare, organize, and deliver an engaging verbal presentation. And to develop knowledge of ITC.

- Valuing literature, language, and imagination: Students will develop a passion for literature and language. They will appreciate literature's ability to elicit feeling, cultivate the imagination, and call us to account as humans. They will cultivate their capacity to judge the aesthetic and ethical value of literary texts–and be able to articulate the standards behind their judgments. They will appreciate the expressive use of language as a fundamental and sustaining human activity, preparing for a life of learning as readers and writers.

Course Outcome:

Upon completion of this course, the student will be able to:

- Recognize poetry, drama, prose and fiction from a variety of cultures, languages and historic periods.
- Understand and appreciate poetry, drama, prose and fiction as a literary art form
- Analyze the various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme, etc.
- Identify a variety of forms and genres of poetry, drama, prose and fiction from diverse cultures and historic periods, such as sonnets, ballads, dramatic monologues, free verse, short story, tragedy, comedy, one act play, novel, biography, autobiography etc.
- Recognize the rhythms, metrics and other musical aspects of poetry: conventions of drama: elements of prose and fiction.
- Read and discuss selected poems, short stories, essays, dramas, novels, in English literature and in translation.
- Apply the principles of literary criticism to the analysis of poetry.
- Broaden their vocabularies and to develop an appreciation of language and its connotations and denotations
- Develop their critical thinking skills.
- Develop a deeper appreciation of cultural diversity by introducing them to poetry, drama, prose and fiction from a variety of cultures throughout the world
- Develop their own creativity to enhance their writing skills.

Department of Sociology:

Programme out Comes:

The students studying in sociology gets extensive knowledge about social institutions, culture, mores, social thinker's everyday interaction as these shape identity, behaviour, social system and social inequality.

The programme prepares students to develop qualities and quantitative research skills tools of advanced critical thinking and theoretical applications. The students are not only trained but people them in civic and community engagement in the form of social service.

2. Specific out comes:

A student who studies as optional subject develops the ability.

1. To observe relation between individuals and institutional, cultural, social format.
2. To understand the experiences of life which is shaped by social and economic status, ethnically, race, gender, religion, and sub culture.
3. To understand basic knowledge of social and gender inequality.
4. To understand contemporary social issues and debate on them and make community programme.
5. To understand the process of social change in the society.
6. To demonstrate and ability to collect analysis and data.

Course outcome:

1. The student after studying sociology will demonstrate the ability to discuss sociological theories, concepts and ideas in large and small groups and express empirically and on theoretically based studies.
2. A student can apply theories to understand social phenomena.
3. To explain how culture and social structure shape once experiences an and effectively communicates to the society.
4. To develop critical thinking of conformity problem identity the cause and purpose of solutions.
5. Students will develop analytical skill to demonstrate knowledge of core sociological concepts and ability to communicate sociological knowledge to others.

BSc - PHYSICS

PO's, PSO's and CO's

PROGRAM OUTCOME

1· Assess the existing knowledge, concepts, techniques, and methodology appropriate to the graduate's chosen discipline.

2· Conceive and plan a high-quality research and/or creative capstone project in the appropriate disciplinary or multi-disciplinary context.

3· Apply discipline-based and/or cross-discipline-based knowledge to design a problem solving strategy

4· Identify major issues, debates, or approaches appropriate to the discipline

5· Synthesize complex information appropriate to the discipline

6· Select and organize credible evidence to support converging arguments

7· Develop an argument in accordance with the methods of the discipline

8· Solve discipline-based and/or cross-discipline-based problems using strategies appropriate to the subject

9· Employ writing conventions appropriate to the discipline

10· Exhibit disciplined work habits as an individual

Program Specific Outcomes

1. Identifying and describing physical systems with their professional knowledge.
2. Developing their scientific intuition, ability and techniques to tackle problems either theoretical or experimental in nature.
3. Knowledge of general physics like sound, wave, friction, forces and laws of motion and use of mathematics.
4. Information of electrical current, circuits, construction and their use.
5. Learning about concepts of nuclear physics and nuclear energies and importance of their use for mankind.
6. knowing about the light and its importance in life, its characteristics, properties and use in various instruments .

Course Outcomes

Bsc first semester

1.1 : Mechanics and properties of matter

1. Study the elastic behavior and working of tensional pendulum
2. Study of bending behavior beams and analyze the expression for young's modulus
3. Understand the surface tension and viscosity of fluid.
4. Understand the definition for centre of gravity in hemisphere, hollow hemisphere etc.,
5. Understand the dynamics and gravitation
6. Study the behavior of rigid body dynamics.
7. Different types of motions in nature
8. Difference between translational motion and rotational motion
9. Various elastic constants and property of Elasticity.
10. Surface tension and its applications.
11. Elasticity of flat spiral spring.
12. Viscosity of liquids and mathematical theory related with it

Bsc second semester

2.1: Heat, Thermodynamics and Wave and Oscillation

1. Analyze waves and oscillations
2. Study the basic properties and production of ultrasonic's by different methods
3. Oscillations and waves and their properties.
4. Use of waves in general life.
5. General information of various types of gases and theories related to it.
6. How gas can be liquefied? What are the conditions for liquefactions of gases?
7. Thermal properties of gases and various laws related in thermodynamics.
8. Transport phenomena in gases.

Bsc third semester

3.1: Optical instruments, Laser and Electrodynamics

1. Optics and properties of light.
2. What are the optical instruments and their developments.
3. Vectors and scalar and mathematical applications.
4. Lenses and various cardinal points.
5. LASERS and applications in various fields
6. Study the electric field using Coulombs inverse square law in electrostatics of current
7. Understand the faradays laws of electromagnetic induction by Rayleigh's method
8. Analyze the value of Maxwell equation- boundary conditions.

Bsc fourth semester

4.1: Physical optic and Electricity

1. Formation of Images by Newton's formula.
2. Properties of light like interference, diffraction and polarization with theory and experiments.
3. Properties of optical fiber and use in telephone communication.
4. To introduce the students about domestic wiring, the functioning of various electrical apparatus and the safety measures. Emphasize the effects of electric shock and precautionary measures.
5. To impart basic knowledge of electrical quantities such as current, voltage, power, energy and frequency to understand the impact of technology in a global and societal context.
6. To provide knowledge about the basic DC and AC electric circuits and magnetic circuits.
7. To introduce the concepts of generators, motors, transformers and their applications.
8. Study of CRO, measurement of voltage and frequency.

Bsc fifth semester P-II

5.2 : Quantum mechanics , Nuclear physics and Energy physics

1. Pin point the historical aspects of developments of quantum mechanics
2. Understand and explain the difference between classical and quantum mechanics
3. Understand the idea of wave function.
4. Understand the uncertainty relation.
5. Solve Schrödinger's equation for simple potential.
6. Know what radioactivity is and how it arise.
7. Known fundamental concepts: eg:- half life , mean life , radioactive series, radioactive equilibrium.
8. Have fundamental understanding about what a nucleus 'look like' (shell model, liquid drop model, magic number.)
9. Understand disintegration process.

10. Can express the alpha decay, beta decay and gamma decay.
11. Can express reaction equation and Q value and energy of beta particle.
12. Can explain beta decay process by using the Fermi theory.

Bsc fifth semester P-I

6.1: Atomic Physics, Quantum Mechanics, Nuclear Physics

1: Explain the characteristics of Photoelectric and Compton effects.
2: Give the origin of Hydrogen spectra from Bohr's theory.
3: Obtain the energy values of systems executing Linear Harmonic Oscillator
4: Explain the characteristics of X ray Spectra and derive Mosley's law.
5: State de Broglie postulates and explain wave like properties of particles.
6: Explain the origin radioactivity and magic number from Liquid drop model and Shell Model
7: Explain the phenomenon of Radioactive Decay (α, and β)
8: State Pauli exclusion principle and describe LS and JJ coupling scheme.
9: Explain Nuclear Fission and Fusion process in Nuclear reaction.
10: Explain Zeeman effect, Paschen Back effect and Raman effect in atomic spectra.

Bsc sixth semester P-I

Special Theory of Relativity, Solid State of Physics, Statistical Mechanics

1: Derive Lorentz transformation equations by using special Theory of Relativity.
2: Define Four Dimensional Space and deduce the transformation formulae between E and B,J and ρ.
3: Explain Gibb's paradox and derive Sackur Tetrode formula.
4: Define Black Body and establish spectral distribution of energy of Black Body radiation.
5: Describe different types of Crystal Structure and different type interatomic Binding in solids.
6: Obtain an expression of Electrical and thermal conductivity in free electron model.
7: Define different types of magnetic materials by using the concept of Classical and Quantum theory.
8: Compare the concept of MB, BE, and FD statistics and use it to explain the specific heat and entropy of solids, liquids and gasses.
9: Describe Brownian Motion by Langevin and Einstein theories.

Bsc sixth semester P-II

Electronics ,Optoelectronics

1: Explain Thermionic emission and characteristics of vacuum tubes.
2: Explain the I-V characteristics of Zener diode, Tunnel diode and PN diode.
3: Construct Rectifiers and Filters using diodes.
4: Find gain of BJT Amplifiers &frequency of operation of Oscillators.
5: Explain communication techniques using Modulation & de modulation.
6: Calculate gain of Operational Amplifiers and describe its use.
7: Introduce basic gates and construct Flip- Flops.
8: Circuit and properties of UJT and FETs.

B.Sc., COMPUTER SCIENCE

Program Specific outcomes (PSOs)

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Student Outcomes:

Outcome 1 - Communication

Students will be able to communicate in written and oral forms in such a way as to demonstrate their ability to present information clearly, logically, and critically.

Outcome 2 - Mathematics and Theory

Students will be able to apply mathematical and computing theoretical concepts in solution of common computing applications, such as computing the order of an algorithm.

Outcome 3 - Programming

Students will be able to complete successfully be able to program small-to-mid-size programs on their own. Sufficient programming skills will require use of good practice, e.g., good variable names, good use of computational units, appropriate commenting strategies.

Outcome 4 - Systems Design and Engineering

Students will be able to use appropriately system design notations and apply system design engineering process in order to design, plan, and implement software systems

Outcome 5 - Depth of Knowledge

In a self-selected area of depth in Computing, students will demonstrate a depth of knowledge appropriate to graduate study and/or lifelong learning in that area. Students should be able to read for understanding materials in that area beyond those assigned in coursework.

Outcome 6 - Preparation for Career and/or Graduate Study

Students will be prepared for a career in an information technology oriented business or industry, or for graduate study in computer science or other scientific or technical fields.

PROGRAMME SPECIFIC OUTCOME OF GEOGRAPHY

After graduation the student will be able to-

PSO 1: understand the position of geography among the earth sciences and its importance and interrelationship. PSO 2: have in-depth knowledge in physical geography particularly formation of landform and its associated processes, world distribution of flora and fauna and their factors, marine resources etc. PSO 3: acquire knowledge on elements, factors of climate and its influence on mankind in a global perspective. PSO 4: assess man-nature relationship and resource management. PSO 5: acquire knowledge on physical environment and its role in maintaining biodiversity along with human impact on different environments, environmental impact assessment. PSO 6: handle population data including estimation of population, causes and consequences of population growth, population policies. PSO 7: handle statistical data,

interpretation and model building. PSO 8: prepare map of different themes following different map projections. PSO 9: earn knowledge on recent space technologies including interpretation of Satellite Imagery, Aerial Photographs, Geographical Information System and Global Positioning System (GPS). PSO 10: acquire expertise in survey works by using plane table, prismatic compass, Dumpy's Level and Theodolite and subsequently able to prepare map on local level for the planning purpose. PSO 11: acquaint with the present geo-political issues of South East Asia including major insurgency activities in the regional and local level.

COURSE OUTCOME OF GEOGRAPHY:

Course Code: GGRM 101-

CO1: Students will be acquainted with the distinctiveness of Geography as a field of learning in social science as well as natural science. Besides they will be familiar with the interrelationship between Geography and other branches of Earth Sciences.

Course Code: GGRM 201

CO1: Students will be familiar with the theories in Geomorphology.

CO 2: Students will be familiarising with geomorphic processes.

CO3: It deals with Biogeography.

CO4: It deals with Oceanography

Course Code: GGRM 301

CO1: It deals with the atmosphere and its components.

CO2: It deals with Humidity, precipitation and atmospheric disturbances.

CO3: It deals with the classification of climate, climate change and recent issues.

Course Code: GGRM 302 (Practical)

CO1: It deals with the Topographical sheet study and profile drawing.

CO2: It deals with the Climatic data study.

Course Code: GGRM 303

CO1: It deals with Environmental Geography, Environmental Impact Assessment, Environment and disaster management.

CO2: Deals with Ecology and Ecosystem.

CO3: Deals with Gography of Resourses.

Course Code: GGRM 304 (Practical)

CO1: Deals with cartographic representation.

CO2: Deals with Morphometric Analysis.

Course Code: GGRM 401

CO1: Deals with the concept of Human Geography, its development and different school of thought.

CO2: Deals with pattern of Human adaptation, Mankind and Settlement.

CO3: Deals with Population growth and distribution, Population regions and Policies.

Course Code: GGRM 402 (Practical)

This paper is designed to acquaint the students with the use of different cartographic methods to represent population data and their analysis and drawing of thematic maps and their interpretation.

CO1: It deals with the population data study.

CO2: It deals with the Thematic mapping.

Course Code: GGRM 403

This paper deals with various aspects of Industrial, Agricultural and Transport Geography.

CO1: It deals with Industrial Geography.

CO2: Deals with Agricultural Geography.
CO3: Deals with Transport Geography.
Course Code: GGRM 404 (Practical)
This paper deals with drawing of Hypsometric and Bathymetric curve and their interpretation.
CO1: Deals with Hypsometric and Bathymetric Curve.
CO2: Deals with Excursion or Field Report visited by the students of geographical importance.
Course Code GGRM 501
It deals with the study of Regional geography of India and NE India.
CO1: Deals with the Physical Geography of India.
CO2: Deals with Mineral and Power Resources of India.
CO3: Deals with Physical Geography of N.E.India.
Course Code: GGRM 502 (Practical)
This paper deals with preparation of Cartograms and Project Report writing.
CO1: Deals with Flow line and Cartographic Study.
CO2: Deals with writing of project report.
Course Code: GGRM 503
This paper is designed to study Regional Geography of Asia, North America and South America.
CO1: Deals with Regional geography of Asia.
CO2: Deals with Regional Geography of North America.
CO3: Deals with the study of South America.
Course Code: GGRM 504 (Practical)
This paper deals with preparation of Thematic mapping.
CO1: Deals with Thematic mapping and Shape index analysis of India.
CO2: Deals with Thematic mapping of N.E.India.
Course Code: GGRM 505
This paper mainly deals with Political Geography and Geopolitical Issues.
CO1: Deals with concept, development and functions of political geography.
CO2: Deals with Geopolitical issues of South East Asia.
Course Code: GGRM 506 (Practical)
This paper deals with slope analysis and drawing of block diagrams.
CO1: Deals with slope analysis by different methods.
CO2: Deals with preparation of Block diagram.
Course Code: GGRM 507
This paper deals with Social geography, Regional concept and Planning and Regional Planning Strategy.
CO1: Deals with Social Geography.
CO2: Deals with Regional concept and Planning.
CO3: Deals with Regional Planning Strategy.
Course Code; GGRM 508 (Practical)
This paper deals with Cartograms and Quantitative analysis and Network Analysis.
CO1: Deals with Quantitative Analysis.
CO2: Deals with Network Analysis.
Course Code: GGRM 601
This paper aims to pertain knowledge on history of map projection and surveying and leveling, and modern cartographic methods.
CO1: Deals with history and development of map projection.

CO2: Deals with cartographic methods and surveying by different techniques.
CO3: Deals with modern cartographic methods including Remote sensing ,GIS and GPS.
Course Code: GGRM 602 (Practical)
This paper deals with the construction of map projection.
CO1: Deals with map projection of Zenithal, Conical and Cylindrical type.
Course Code: GGRM 603
This paper deals with Regional geography of India and N.E.India.
CO1: Deals with Agriculture, Industries and Transport of India.
CO2: Deals with the Socio-cultural Structure of India.
CO3: Deals with the Economy of North East India.
Course Code: GGRM 604 (Practical)
It deals with the modern techniques of interpretation of satellite imagery.
CO1 : Deals with Image Intepretation.
CO2: Deals with Satellite image comparison with toposheet.
Course Code: GGRM 605
This paper deals with the Regional geography of Africa, Australia and New Zealand and Europe.
CO1: Deals with the regional geography of Africa.
CO2: Deals with study of Australia and New Zealand.
CO3: Deals with the study of Europe.
Course Code: GGRM 606 (Practical)
This paper deals with the analysis of statistical data.
CO1: Deals with the statistical data representation (median and mode; NN Analysis;Principal componenet analysis)
CO2: Deals with the statistical data representation part-2.(LQ Analysis, Lorenz curve)
Course Code: GGRM 607
This paper deals with the Geographic thoughts and Quantitative methods.
CO1: Deals with development of geography in ancient, mediaval and modern period.
CO2: Deals with Quantitative methods used in geographical analysis.
Course Code: GGRM 608 (Practical)
This paper deals with conducting survey by different methods and preparation of maps.
CO1: Deals with surveying by plane table and prismatic compass.
CO2: Deals with surveying by Dumpy’s level, theodolite and GPS.

B.Sc., COMPUTER SCIENCE

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DEPARTMENT OF URDU

Programme Outcome : Basic and Optional

P 1 Develop ability to understanad the importance of urdu language in national integration.

P 2 Understand ethical values contained in urdu literature and strive to apply them in day to day life.

P 3 Gain ability to effectively communicate in urdu and be able to translate simple English language text to urdu language and vice versa.

P 4 Appreciate the nuances of urdu literature for the benefit of humanity.

P 5 Effective communication: Communication effectively on our actives with our community and with society at large level.

P 6 Ethical behaviour : Applied the ethical principals and commit professional ethics and responsibility.

P 7 Life long learning: Recognise the need for and have the preparation & ability to engage in independent & life long learning.

P 8 Know about the Social responseibility & Values.

P 9 Usage of Modern tools.

P 10 Develop an ability to read texts in relation to their historical cultural context.

Programme Specific out come in Basic Urdu

PSO 1 Understand the nature & basic concept of urdu language & literature.

PSO 2 Understand the application of urdu trends culture & civilization.

PSO 3 Effective ommunication confident & involved learners.

PSO 4 Strong dense of identity concerted with and contribute to their world.

PSO 5 Strong sense of well being.

Course out Comes in Optional Urdu

Co 1. Understand Marsiya & Safarnama.

Co2. Develop the skill of Caricature (Khaka) writing in Urdu.

Co3. Understand and acquire skill of writing Humour & satire.

Co4. Axquire knowledge of Autubiography.

Co5. Understand the cocept of History of urdu literature & linguistic.

Co 6. Learn about the major contribution of famous urdu writers.

Co7. To know about the origin & development of criticism.

Co08. To know about the urdu literature with its historical prospective.

Co9. Understand the different aspects about urdu language and growth of urdu language.

Co10. Learn about the life & contribution of Allama Iqbal in urdu literature.

Course out Comes: in Basic Urdu

Co1. Gain knowledge of different Movement in urdu Prose,Poetry.

Co2. Contribution of Maulana Azad for National integration.

Co3. Learn the urdu Sarf & nahu.

Co4. Appreciate the literary beauty of Gazals and nazams.

Co5. Know the use of ICT in urdu language & literature.

Co6. Know about the urdu drama dramatatist contribution in urdu literature.

Co7. Know about the Dr Allama Iqbal personality & Art of poetry.

Co8. Learn about the Deccani poetry & its historical prospective.

Co9. Gain knowledge of prose to know famous urdu writers and their famous work.

Co10. Know famous urdu gazals poets their poetry & its special features.

Co11. Know about the urdu letter writing & its historical prospective.

Co12. Develop the skill & Arts caricature writings in urdu.

O13. Know famous urdu gazals poets their poetry & its special features.

Programme Specific Out Come in Optional Urdu

PSO 1. Know about urdu essayists novelists dramatists and new and old poets and their poetry.

PSO2. Read understand and enjoy urdu poems.

PSO3. Gain knowledge about the authors their lives and their contribution to urdu literature.

PSO4. History of urdu language & literature.

PSO5. Understand what is satire their types & uses.

PSO6. Understandnature & basic concept of prose & poetry.

Department of Political Science

Program outcome:

- Students will demonstrate the ability to ask relevant research questions pertaining to political science
- Students will demonstrate the ability to examine and evaluate different sides of Political Issues.
- Students will demonstrate the ability to analyze the things clearly and logically
- Students will demonstrate the ability to substantive knowledge of concepts and facts relevant to Political Science
- Students will demonstrate the ability to apply Political Science knowledge to current trends and events in politics
- Students will demonstrate the ability to develop a proficiency in research and analytical skills
- Students will demonstrate the ability to develop effective oral and written communication skills to present information in the discipline
- Participating as a civically engages member of society
- Student will be able to use electronic and traditional library to conduct research
- Students will be able to write a clear and cohesive explanatory synopsis of the theory

Course outcome:

- In the first semester, student will be able to understanding the basic concepts and theories of political science like sovereignty, law, liberty, rights, democracy, communism, human rights etc.
- In the second semester, students will be able to identify the most important contributors to ancient political thought and modern political thought and explain why their contributions are important
- In the third semester, students will be able to discuss major theories and contributions of Indian political thinkers
- In the fourth semester, students will be able to describe the structure of the Indian Government and explain the duties of each branch of government, and able to critically assess the Indian political system, coalition government, federal system and major institutions.
- In the fifth semester, students will be able to describe the different concepts process of public administration like hierarchy, span of control, delegation of authority, centralization and decentralization, staff and line agencies, management , recruitment, training, promotion, retirement, morale, discipline, budgetary process planning etc.
- In the fifth semester, students will be able to discuss and evaluate the political institutions and their structure and operations in Britain and Switzerland
- In the sixth semester, students will be able to describe the Indian administrative system like secretariat, PMO, CVC, Lokapal, Lokayukta, different services corruption etc.
- In the sixth semester, students will be able to discuss and evaluate the political institutions and their structure and operations in USA and Japan

Programe specific outcome:

Upon graduation, a student will be able to:

- Demonstrate depth of understanding and mastery of subject matter in a chosen subfield of political science.
- Apply critical and analytical thought to evaluate political phenomena.
- Compose written work that is analytically sound, clear, persuasive, and stylistically sophisticated.
- Orally communicate political science findings and arguments in a coherent and persuasive fashion.
- Conduct substantial research on political phenomena relying on both primary and secondary sources.
- Understand the primary theoretical and methodological approaches in the study of political science, and understand these approaches' strengths and lim