SRI ADICHUNCHANAGIRI FIRST GRADEE COLLEGE

CHANNARAPATTANA-573116

PROGRAMME OUTCOMES

Bachelor of Arts (B.A.)

Student seeking admission for B.A. programme are expected to imbue withfollowing quality which help them in their future life to achieve the expectedgoals.

a. Realization of human values.

b. Sense of social service.

c. Responsible and dutiful citizen.

d. Critical understanding

e. Creative ability.

.**BACHELOR OF SCIENCE (B.Sc)**

Students taking admission to this program of B.Sc. are expected to get equippedwith following outcomes:

a Explaining the basic scientific principles and methods .

b. Inculcating scientific thinking and awareness among the student.

c. Ability to communicate with others.

d. Ability to handle the unexpected situation by critically analyzing the problem.

e. Understanding the issues related to nature and environmental contexts and sustainable development.

COMMERCE (B.COM)

Students who have taken admission to this program of B.Com are expected to concentrate upon the following outcomes.

a. Commercial sense.

b. Develop managerial skills.

c. Entrepreneurial skill.

d. Budgeting policy.

e. Human Resources Management.

f. Develop Numerical ability.

i. Well versed with business regularity framework

Programme: B.Sc(Physics, Chemistry and Mathematics)

Bachelor of Science (B.Sc) programme offers theoretical as well as practical knowledge about different subjects such as Physics, Chemistry, Mathematics depending on the combination opted by the student. This programme is most beneficial for students who have a strong interest and background in Science and Mathematics. Following are the various programme outcomes:

1. Demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of Physics.

2. Develop and understand the value of Mathematical proof and demonstrate proficiency in writing and understanding proofs.

3. The programme makes the students ready to take up jobs in various sectors such as research firms, health care industry, chemical industry, testing laboratories, Software Company, banks, etc.

4. Demonstrate the ability to justify and explain their thinking and/or approach.

5. Students are expected to have an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.

6. Students are also expected to develop written and oral communication skills in science and mathematics related topics.

7. Students are able to analyze inorganic and organic molecules.

8. The programme develops the team spirit and co- ordination in students through experiential and investigative laboratory learning.

9. Develop laboratory skills and professional communication skills.

10. Appreciate the role of chemistry in the society.

11. The ability to understand, analyze and develop software programs in the areas related to system software, web design, application program, database, graphics and networking for efficient design of technology of varying complexity.

12. Students will use effective technology appropriately, such as PowerPoint, slides, posters, handouts, and transparencies in oral presentations.

13. Develop personal skills such as the ability to work both independently and in a group.

14. Acquire academic abilities, personal qualities and transferable skills, which will give them an opportunity to develop as responsible citizens.

COURSE OUTCOMES : DEPARTMENT OF KANNADA

SEMESTER I :VIGYANA GANGOTHRI – 1 (PADHYA AND GHADYA)
Padhya :

1. About Principles of Life by D.V.G

2. Character of Malli by G.P.Rajarathnam.

3. About Modern Civilized World by ChannaveeraKanavi

4. Influence of Mother and Mother land on a person by GangadharaChttala.

5. Identifying the reality of life by ChandrashekaraKambara

6. Prediction about science and technology by AravindaMalagathi

7. Treating of devadasi in society by SukanyaMaruthi

8. Confidence building in women's life by RoopaHassana.

Ghadya:

1. Classification of all sex and creed as same in society by BasavarajaKattimani.

2. Care about a women in society byNemichandra

3. Charactering Shalusabhi by GoruruRamaswamyiyengar

4. Autobiography of M.D. Nanjundaswamy by B.N. Mayura

5. Knowing Medicinal Plants in forest, about wild life by K.P. PoornachandraTejaswi

SEMESTERII : VIGYANA GANGOTHRI – 2 (NATAKA AND KHADAMBARI)

Nataka:

1. Complete Drama – MaaNishadha by GirishKarnad

2. Complete Drama – Shakshikallu by Go.Ru.Channabasappa

3. Complete Drama – Sacristies by R.D.Kamath.

Khadambari:

1. Selected Parts of the novel BekkinaKannu byTriveni

2. Selected Parts of the novel Karvalo by K.P. PoornachandraTejaswari

3. Selected Parts of the novel Parva by S.L.Bairappa.

SEMESTER III : VIGYANA GANGOTHRI – 3 (KAVYA AND KHATHANA)

Kavya – Part 1:

- ☐ The Principle of Life
- ☐ Vachanagalu
- ☐ Selected poems from Harihara
- ☐ Selected poems from Kanakadasa
- ☐ Selected poems from NanjundaKavi
- ☐ Pray for rain by HelavanaKatteGiriyamma
- ☐ Keerthane by Mahipathidasa.

Khathana:

- ☐ Mildness of a growing plant by Sheerasagara
- ☐ About a motherhood by Ravindra Bhatt
- ☐ Describing the ocean life by RahamathTarikere
- ☐ Childhood stores of Ramayana by Kuvempu
- ☐ Essays about local Market place by G.V. Anandamurthy

SEMESTER IV: VIGYANA GANGOTHRI – 4 (KAVYA AND BHASHE)

Kavya – Part 2:

- ☐ YeraduGiliyaKathe by Dhurghasimha

☐ ☐Selected poem by Pampa

☐ ☐Selected poem by Ranna

☐ ☐Selected poem by Janna

☐ ☐Selected poem by Nagavarma-I

☐ ☐JanapadaMahabharatha by P.K. Rajashekar

Bhashe:

☐ ☐General Letter, RequisitionLetter

☐ ☐Official Letters, Government letters, circular, Remainderletters

☐ ☐Advertisement, Pamphlet, Banner,Poster

☐ ☐Reportingwriting

☐ ☐Computer Knowledge in Kannada.

5. Introduction about Champukavya and Champulakshana

COURSE OUTCOMES: DEPARTMENT OF ENGLISH

SEMESTER I

☐ ☐Analyzing poetry to understand social issue through literature

☐ ☐To move with prose it talks about social awareness in society

☐ ☐Helps student to analyze the significance of myths and re-reading classics in which classified under broad themes.

☐ ☐Student will cultivate how to develop passage and improves their speaking or listening skill.

☐ ☐How to communicate and from a grammatically impressive discourse

SEMESTER II

☐ ☐Observing the pan global cultures, values, traditions and lifestyle through the short stories and Travelogue

☐ ☐Analyzing prose section totally talks about how people struggled to get freedom and their struggling to reach their goal

☐ ☐Students develop their ability in communicating skills like writing paragraphs, framing question, punctuation and analyzing paragraph.

SEMESTER III

☐ ☐The literary text provides powerful contexts to understand human situations in our world and

show how they are expressed in English language.

☐ ☐Understanding the disturbing anti-social practices prevalent in society like discrimination on the basis of class, creed, race, gender, language, religion and nationality..

☐ ☐Awareness of the socially neglected yet powerful literary genres like Dalit Literature

☐ ☐Develop the sensitivity towards the Social issues with the help of author like, MULKRAJ ANAND.

SEMESTER IV

☐ ☐Introducing them to the different genre of literature by introducing to drama

☐ ☐Practical knowledge of how to face interviews, writing letters, reports, reviews, poetry, acknowledgements and references

☐ ☐Develop sensitivity with the help of Plays

☐ ☐Critically appreciate and analyze the drama

COURSE OUTCOMES: ENVIRONMENTAL STUDIES

SEMESTER I/II

☐ ☐After studying this course students gain the knowledge of complex environmental issues.

☐ ☐Students gain the knowledge of natural resources viz.,forest resources water resources, mineral resources, food sources energy and land resources.,

☐ ☐Students gain the comprehensive knowledge of energy flow in eco system, food chains, food webs and ecological pyramids.

☐ ☐They should understand the types, characteristic features, structures and functions of forest, grass land, desert and aquatic eco systems.

☐ ☐Students gain the knowledge about biodiversity at global, national and local levels and treats to biodiversity.

☐ ☐They should understand the causes, effects and measures of air pollution, water pollution, soil pollution, marine pollution, thermal pollution, nuclear pollution, and nuclear hazards

☐ ☐They gain the knowledge about water conservation. rain water harvesting, watershed management, and environmental ethics, global warming, acid rain, ozone layer depletion and environmental acts.

☐ ☐Students should understand population growth, population explosion, human rights, HIV

and,women welfare.

COURSE OUTCOMES: INDIAN CONSTITUTION

SEMESTER I/II

- Salient feature of Citizenship
- Awareness about Fundamental Rights
- Knowledge of Directive principles of State policy
- Basic concepts of Fundamental Duties
- Understand the details of supreme court of India
- Specify in details the right to informationact

COURSE OUTCOMES: DEPARTMENT OF PHYSICS

Students are expected to acquire core knowledge in physics, including the major fields

of classical mechanics, quantum mechanics, electromagnetic theory, electronics, optics, special

theory of relativity and modern physics.

This course will provide a theoretical basis for doing experiments in related areas.

Students should learn how to design and conduct an experiment demonstrating their

understanding of the physics concepts.

The student should effectively communicate their knowledge of physics from basic

concepts to specific detailed presentations through oral and written modalities.

SEMESTER-I : MECHANICS, PROPERTIES OF MATTER AND ELECTROSTATICS

- Know the fundamentals of different types of frames of references and Galilean transformation
- Understand the basics of properties of matter, how Young's modulus and rigidity modulus are defined, how they are evaluated for different shapes of practical relevance
- Gain knowledge about the properties of fluids especially of viscosity and surface tension which help the students in their daily life.
- Know conservation laws of energy, linear and angular momentum and apply them to solve problems
- Learn the basics of potentials and fields, central forces and Kepler's laws
- Have basic knowledge of moving coil and Helmholtz galvanometer, electric pressure on a

charged surface and attracted disc electrometer.

SEMESTER-II : HEAT, THERMODYNAMICS AND SOUND

☐ ☐Become familiar with various thermodynamic process,reversible and irreversible process and knowledge of calculating change in entropy for various process.

☐ ☐Realize the importance of thermodynamicfunctions and applications of Maxwell's relations.

☐ ☐Learn the fundamentals of harmonic oscillator model, including damped and forced oscillators and expression for amplitude and phase at resonance.

☐ ☐Have in depth knowledge of the general equation of wave motion and transverse waves in stretched strings and longitudinal waves in gases and rod.

☐ ☐Become familiar with analysis of complex waves using Fourier series.

SEMESTER-III: ELECTRICITY AND ELECTROMAGNETISM

☐ ☐Be able to solve a variety of problems related to Maxwell's equations and explain term displacement current.

☐ ☐Know in depth the response of CR, LC, CR and LCR circuits to AC, which is essential indesigning as well as understanding the working of electronic circuits.

☐ ☐Be able to solve the problems related to growth and decay of dc current in RL,RC and LCR circuits

☐ ☐Familiarise with electrical circuits, electrical connections, and storage devices (inductor and capacitor), their working etc. which will be quite useful in their daily life.

☐ ☐Learn construction & working CRO and its use in measurement of voltage, frequency and phase.

☐ ☐Be able to analyse complex electrical circuits using mesh analysis, Thevenin, Norton and Superposition theorems.

☐ ☐Know the thermodynamic theory of thermoelectric effect, laws of intermediate metals and temperature.

SEMESTER-IV : OPTICS AND SPECTROSCOPY

☐ ☐Understand the basic concepts of wave optics and learn very important and fascinating areas of interference, diffraction and polarization with many experiments associated with it.

☐ ☐Become familiar with molecular spectroscopy and have gained basic ideas regarding vector model of atom, spin orbit interaction, Zeeman Effect, Raman Effect.

☐ ☐Appreciate the results of Stern-Gerlach experiment, Franck-Hertzs experiment, Thomson

experiment to determine specific charge of an electron and Millikan's oil drop experiment to determine charge of an electron.

☐ ☐Understand the basic principles of working of He-Ne, ruby laserand various applications of laser in different fields.

SEMESTER-V PAPER V : COMPULSORY PAPER I: SPECTROSCOPY AND ELECTRONICS

☐ ☐Become familiar with molecular spectroscopy and have gained basic ideas regarding vector model of atom, spin orbit interaction, Zeeman effect, Raman effect.

☐ ☐Appreciate the results of Stern-Gerlach experiment, Franck-Hertz experiment, Thomson experiment to determine specific charge of an electron and Millikan's oil drop experiment to determine charge of an electron.

☐ ☐Be able to analyse complex electrical circuits using mesh analysis, Thevenin, Norton and Superposition theorems.

☐ ☐Acquire knowledge about how a semiconductor diode rectifies an input ac signal and

☐ ☐learn how to construct a transistor amplifier and how its gain varies with frequency

☐ ☐Familiarize with logic circuits and their applications which enables them to design logiccircuits of their own.

SEMESTER-V PAPER VI :COMPULSORY PAPER II: CONDENSED MATTER PHYSICS

☐ ☐Familiarize about statistical distribution and have basic ideas about Maxwell Boltzmann, Bose-Einstein and Fermi Dirac statistics and their applications

☐ ☐Learn thermal, electrical properties of solid and understand Einstein's and Debye's theory of specific heat of solids.

☐ ☐Understand the working of Bragg's spectrometer and Compton effect.

☐ ☐Able to differentiate the structural difference of NaCl and KCl.

☐ ☐Gain knowledge of superconductivity, its underlying principles and its applications inmodern world.

☐ ☐Understand the basic principles of working of He-Ne, ruby laserand various applications of laser in different fields.

SEMESTER-V PAPER VII ELECTIVE PAPER I : SOLID STATE AND SEMICONDUCTOR PHYSICS

☐ ☐Acquire basic knowledge of semiconductor , classification of solid on the basis band gap theory, concept of hole in a semiconductor, charge carrier density, mobility and continuity equation

☐ ☐Learn how LED and solar cell work

☐ ☐Know the physics behind dia, para and ferromagnetism

☐ ☐Familiarize with different types of liquid crystal, its uses and defects in solids

☐ ☐Acquire knowledge of different types of polarisibility, classical and quantum theories of polarisability

SEMESTER-VI PAPER VIII : COMPULSORY PAPER I: SPECIAL THEORY OF RELATIVITY
AND QUANTUM MECHANICS

☐ ☐Gain clear knowledge about wave properties of particles, De Broglie waves and itsimplications

on the uncertainty principle.

☐ ☐Find solution to Schrödinger's equation for systems such as particle in a box, linear simple harmonic oscillator

☐ ☐Describe departure from classical physics, basic principles of special theory of relativity

☐ ☐Derive Lorentz transformation equations and their application to understand time, length and mass measurement in inertial frames

SEMESTER-VI PAPER IX : COMPULSORY PAPER II: NUCLEAR PHYSICS

☐ ☐Gain a clear picture of nuclear composition and various nuclear models

☐ ☐Have in depth knowledge about radio activity, nuclear fission and nuclear fusion, the relevance of nuclear transformation and energy production in stars

☐ ☐Familiarize with fundamental particles of nature

☐ ☐Understand the working of nuclear detectors and particle accelerators , realize the importance of Cosmic rays and its effects on earth

☐ ☐Explain the origin of radioactivity, liquid drop and shell model of nucleus

SEMESTER-VI PAPER X : ELECTIVE PAPER I: ANALOG AND DIGITAL ELECTRONICS

☐ ☐know about flip flops, counters, OPAMP, FET and UJT

☐ ☐analyzevarious combinational and sequential circuits

☐ ☐analyze the functioning of ADC and DAC

☐ ☐explain amplitude and frequency modulation, super heterodyne receiver

COURSE OUTCOMES: DEPARTMENT OF CHEMISTRY

SEMESTER-I

□ □Able to understand periodic properties and classification of elements according to properties & Structure of atom

□ □Application of Schrodinger equation and Learn about quantum numbers

□ □Understand the concepts of basic organic chemistry and importance of organic molecules in daily life.

□ □Learn about classification of liquid mixtures and their properties

□ □Application of Nernst distribution law with respect to solvent extraction process and Numerical problems

□ □To know the different Purification techniques of organic compounds.

□ □Able to understand the concept of Stoichiometry and its relation to reactions

□ □Learn to name organic compounds and their reactions.

SEMESTER-II

□ □Know about chemical bonding and its importance

□ □Able to know the properties and mechanisms of Aromatic hydrocarbons &Alkylhalides

□ □Understand the kinetics of chemical reactions and their mechanism

□ □Able to understand electrolytes and types of electrolytic effects

□ □Capable of understand the concept of hydrolysis of salt and its types, degree of hydrolysis and its relationship with Hydrolysis of salt. pH of solutions and its calculations

□ □Know about Preparation and synthetic applications of organic reagents and their advantages over inorganic reagents

□ □Capable to understand the techniques to manufacture of soaps, detergents and waxes

SEMESTER-III

□ □To be familiar with Chemistry of d and f-block elements.

□ □Understand the Electronic spectra of transition metal complexes

□ □Learn about organometallic compounds and their reactions

□ □Understand chemical reactions of Alcohols, Ethers, Epoxides, Crown ethers and carbonyl compounds on the basis of their functional groups

□ □Learn about to different theories of reaction rates and laws of thermodynamics

□ □Know about free energy concept

□ □Learn about Symmetry of elements, Miller indices, Bravis lattices and X-ray diffraction studies and Numerical problems

☐ ☐Understand the principle, instrumentation and applications of different types of Chromatographic techniques

☐ ☐Learn about Nanotechnology

☐ ☐Understand the Structure and classification of Amino acids and proteins.

SEMESTER-IV

☐ ☐Learn about the Classification of ligands and the theories of coordinate bonding

☐ ☐Understand the application of co-ordination complexes

☐ ☐Capable of understand the terms related to structure, stereochemistry and reactions of Carbohydrates

☐ ☐Know about the application of conductance measurements and conductometric titrations

☐ ☐To know about physical and chemical properties of liquids

SEMESTER-V : PAPER V

☐ ☐Learn about chemistry of d and f-block elements.

☐ ☐Capable of understand the spectra of co-ordination complexes and metal clusters

☐ ☐Learn about Classification of ligands and the theories of structure and bonding

☐ ☐Application of co-ordination complexes.

SEMESTER-V : PAPER VI

☐ ☐Capable of understand the terms related to stereochemistry, structure and reactions of Carbohydrates.

☐ ☐Understand the principles of green chemistry, synthetic polymer and Molecular rearrangements and their applications

☐ ☐Learn about the synthesis and its applications of ethyl acetoacetate &keto-enoltautomerism

☐ ☐Capable of interpreting colour with the constitution of a molecule and learn about the synthesis of dyes.

☐ ☐Learn about Isoprene rule, methods of isolation of terpenes and their structures

☐ ☐Understand the concepts of Chromatographic techniques..

SEMESTER-V : PAPER VII

☐ ☐Learn about Symmetry of elements, Miller indices, Bravais lattices and X-ray diffraction and numerical problems

☐ ☐Understand the principles of synthesis liquid crystals and their applications

☐ ☐Understand the principle, construction and working of spectrophotometry and

photochemistry.

☐ ☐Capable of understanding the principles and applications of rotational, vibrational, Raman and electronic spectroscopy.

SEMESTER-VI : PAPER VIII

☐ ☐Know about the classification of silicates and, selection of reducing agents from Ellingham diagrams

☐ ☐Be able to understand the different methods of metallurgical process

☐ ☐Capable of interpreting structure and reactions of different industrial materials

☐ ☐Learn about fuels, propellants, nanotechnology, carbon nanotubes, nanowires and nanomaterials.

☐ ☐Understand the chemistry of silicates, zeolites, carbides, fullerenes and halogen compounds.

SEMESTER-VI : PAPER IX

☐ ☐learn about reactions and synthesis of heterocyclic compounds.

☐ ☐Understand the structure, properties, reactions & application of synthetic drugs, alkaloids, vitamins, pesticides

☐ ☐Capable of understanding the concepts of UV, IR and NMR techniques

☐ ☐Able to understand the structure and reactions of amino acids, and proteins.

SEMESTER-VI : PAPER X

☐ ☐Able to understand the principles of electrochemistry and its applications

☐ ☐Capable of understand the concept of conductance measurements and conductometric titrations

☐ ☐Know about EMF, types of electrodes and application of electromotive force

☐ ☐understand the concepts of chemical kinetics, rate of reactions and mechanisms of reactions

☐ ☐Understand about phase rule and its application

COURSE OUTCOMES: DEPARTMENT OF MATHEMATICS

SEMESTER I : (CBCS) DSC – MATH 01 ALGEBRA I AND CALCULUS I

☐ ☐Find the higher order derivative of the product of two functions and maxima, minima, concavity, convexity & point of inflection.

☐ ☐Solve a system of Linear equations using the rank of a matrix.

☐ ☐Familiarize Characteristic roots and characters vectors.

☐ ☐To find inverse of a matrix by Cayley- Hamilton theorem.

☐ ☐Analyze different form of equations, finding their roots and understand relation between roots and co-efficients.

☐ ☐Learn about Properties of integrals and Reduction formulae for some standard functions.

☐ ☐Find the Angle of intersection of two curves, Find the radius of curvature, circle of curvature and evolutes.

SEMESTER II : (CBCS) DSC – MATH 02 CALCULUS II & THEORY OF NUMBERS

☐ ☐Explain the definitions of limit, continuity, differentiability as related to functions.

☐ ☐Understand the mean value theorems.

☐☐Expand the functions using Taylor's and Maclaurin's theorems

☐ ☐Understand the concept of partial derivatives and functions of several variables.

☐ ☐Learn the Divisibility, Prime Numbers, Congruences, wilson's, euler's and fermat'stheorem and their application.

SEMESTER III: (CBCS) DSC – MATH 03 ALGEBRA – II AND DIFFERENTIAL EQUATIONS

☐ ☐Assess properties implied by the definitions of groups

☐ ☐Use various canonical types of groups (including cyclic groups and groups of permutation)

☐ ☐Analyze and demonstrate examples of subgroups, Normal Subgroups and quotient groups.

☐ ☐Obtain the solution of differential equations by the method of separation of variables, homogeneous , Linear and exact differential equations

☐ ☐Obtain an integrating factor which may reduce a given differential equation into an exact one and provide its Solution

☐ ☐Find the complementary function and particular integrals of Linear differential equations

SEMESTER IV : (CBCS) DSC – MATH 04 DIFFERENTIAL – II AND REAL ANALYSIS I

☐ ☐Method of Solution of the differential equation of the form $dx/P = dy/Q = dz/R$

☐ ☐Use Lagrange's method for solving the first order linear Partial differential equations. Learn the definition & concept of line integral .

☐ ☐Evaluations of double integral & triple integrals.

☐ ☐Find the volume of given surface by using triple integrals.

☐ ☐Learn the definition of Riemann integral. upper sums and lower sums.

 Criterion for integrability. Fundamental theorem of integral calculus.

 Learn First and Second Mean Value theorems of integral calculus.

SEMESTER V -PAPER V: REAL ANALYSIS AND APPLIED MATHEMATICS

 Understand the term Convergence.

 Applies this term in to problems.

 Illustrate the convergence properties of infinite series.

 Test the convergence of infinite series by comparison tests, D 'Alembert's ratio test, Raabe's test. Cauchy's root test.

 Definitions and basic properties of Laplace Transforms.

 Convolution theorem & its applications.

 Know that any periodic function can be expressed as a Fourier Series.

 Know how to obtain Fourier Series of given Periodic function.

 Expand even or odd function as half range cosine or sine fourier series.

SEMESTER V - PAPER – VI: ALGEBRA III AND REAL ANALYSIS

 Write precise and accurate Mathematical definitions of ring Theory.

 Analyze& Demonstrate examples of ideals and quotient ring.

 Use the concepts of isomorphism and homomorphism for rings.

 Finding the greatest common divisor of polynomials.

 Learn the definition of Riemann integral, upper sums and lower sums.

 Criterion for integrability, Fundamental theorem of integral calculus.

 Learn first and second mean value theorems of integral calculus.

SEMESTER VI- PAPER-VII: ALGEBRA IV & CALCULUS III

 Understand the idea about vectors space.

 Analyze finite and infinite dimensional Vectors space and Subspaces over a field and their properties, including basis structure of vector spaces.

 Use the definition and properties of linear transformation and matrices of linear transformations and change of basis including kernel, range and isomorphism.

 Compute with the characteristic polynomials eigen vectors, eigen spaces.

 Understand the definition of improper integrals .

 Evaluation of improper integrals using Beta and gamma functions.

 Differentiate vector fields.

☐ ☐Determine gradient of scalar point function curl and divergence of vector point functions.

SEMESTER VI - PAPER – VIII: COMPLEX ANALYSIS AND NUMERICAL ANALYSIS

☐ ☐Represent Complex Numbers algebraically and geometrically.

☐ ☐Apply the concept and consequences of analyticity and Cauchy-Riemann equation and results on harmonic functions.

☐ ☐Evaluate complex contour integrals directly and by the fundamental theorem, apply the Cauchy integral theorem.

☐ ☐Understand the concepts of floating point errors in representing numbers solving equations using different methods.

☐ ☐Solve the problems using numerical Differentiation and Integration.

☐ ☐Solve the system of linear equations by using numerical metho

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Programme: B.Com – BACHELOR OF COMMERCE

PROGRAMME SPECIFIC OUTCOMES

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Programme: B.Com – BACHELOR OF COMMERCE

The students after completing the B.Com programme can become a

PSO1 : Business Administrator

PSO 2: Financial, Cost and Management Accountant

PSO 3: Business Researcher

PSO 4 : Bank Manager

PSO 5 : Personal Secretary

PSO 6: Project Manager

PSO 7: Legal adviser

PSO 8: Stock Broker

PSO 9: Business Entrepreneur

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PROGRAMME OUTCOMES

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Programme: B.Com - BACHELOR OF COMMERCE

PROGRAM OBJECTIVES

 The Bachelor of Commerce (B. Com) equips graduates with the knowledge and technical skills necessary to understand and participate in the modern business world. The course also prepares students for subsequent graduate studies and allows them to achieve the highest level of success in their professional careers.

 To cater to the manpower needs of companies in Accounting, Taxation, Auditing, Financial analysis and Management.

 The Course allows students to meet accreditationrequirements specified by accounting and actuarial professional bodies. Graduate options upon completion of the degree include proceeding directly to employment or further professional or research related graduate studies.

 To prepare students to take up higher education to become business scientists, researchers, consultants and teachers with core competencies.

 Graduates of this degree will be productive workplace communicators.

 To develop human resources to act as think tank for Business Development related issues.

 To generate entrepreneurs.

 To develop business philosophers with a focus on social responsibility and ecological sustainability.

 B.Com Graduates will have the capacity to: work collaboratively and productively in groups. Use basic mathematical and statistical tools of analysis apply critical and analytical skills and methods to the identification, evaluation and resolution of complex problems.

 To critically evaluate new ideas, research findings, methodologies and theoretical frameworks in a specialized field of study.

 To develop IT enabled global middle level managers for solving real life business problems and addressing business development issues with a passion for quality competency and holistic approach.

 To develop ethical managers with interdisciplinary approach, recognise and understand the ethical responsibilities of individuals and organisations in society.

 To prepare students to exploit opportunities being newly created in the accounting & finance field.

 To prepare students for professions in the field of Accountancy - Chartered Accountancy,

Cost and Management Accountancy, Company Secretary, Professions in Income Tax and Goods and Service Tax, Professions in life and non-life insurance and professions in Banks by passing the respective examinations of the respective professional bodies.

 To develop the students for competitive examinations of UPSC, KPSC, BSRB, Staff Selection Commission etc.

 To create an additional avenue of self-employment and also to benefit Industry by providing them with suitably trained persons in the field of Accounting & Finance.

PROGRAMME SPECIFIC OUTCOMES

Programme: B.A
 - History, Economics, Political Science (HEP)
- History, Economics, Geography (HEG)
-History, Sociology, Geography (HSG)
-Economics, Kannada, Political Science (EKP)

After completion of the B.A program, students are able to

 Build a sound base for various post graduate courses in Economics, History, Geography, Political Science and other related fields.

 Develop the skill of data collection & use of sampling techniques in research.

 Write effectively for variety of professional and social settings.

 Acquire the knowledge of human values and frame the base to deal with various problems in life with courage and humanity.

 Appear for competitive examinations such as IES, IFS, CSO IAS, IPS, KAS, KES, PDO, IBPSand many more.

 Understand general demographic principles and their patterns at regional and global scales.

PROGRAMME OUTCOMES

Programme: B.A

- History, Economics, Political Science (HEP)

- History, Economics, Geography (HEG)

-History, Sociology, Geography (HSG)

Economics, Kannada, Political Science (EKP)

☐ ☐The students acquire knowledge in the field of social sciences, literature and humanities which make them sensitive and sensible enough to solve the issues related with financial matters of day to day life.

☐ ☐The B.A Graduates will be acquainted with the social, economical, historical, geographical tradition and thinking.

☐ ☐This program makes Economics learner to serve country as economic adviser, Budget Analyst, Adviser to Planning Commission, Financial Adviser, Indian Economic Service, Indian Foreign service, Statistical officer, Data analyst and the many more.

☐ ☐After the completion of B.A. Graduation in History, the students will be able to appear for competitive exams like IAS, KAS and other Civil Service Exams and they can serve as analysts, Museum curator and the like.

☐ ☐The students will be able to demonstrate broad knowledge of historical events and their significance.

☐ ☐Graduation in Political Science empowers the students to work as an observer in the Union/State Election Commission.

☐ ☐Students will be able to explain the parliamentary system, issues and problems relating to the realization of Human Rights and gain knowledge about Political system of the Nation.

☐ ☐Students B.A will be eligible to pursue professional careers in Geography and allied disciplines like GIS and remote sensing. After completion of higher studies in Geography, students can work in Survey department and they can also work as Climatologist, Geomorphologies' and Hydrologists.

☐ ☐Students will be able to write report, editorials and letters.

☐ ☐Students will be able to appreciate the expressive use of language as fundamental and sustaining human activity, preparing for a life of learning as a reader and writer.

COURSE OUTCOMES: INDIAN CONSTITUTION

SEMESTER I/II

- Salient feature of Citizenship
- Awareness about Fundamental Rights
- Knowledge of Directive principles of State policy
- Basic concepts of Fundamental Duties
- Understand the details of supreme court of India
- Specify in details the right to informationact

COURSE OUTCOMES: DEPARTMENT OF HISTORY

SEMESTER-I : HISTORY OF INDIA UP TO 1206 AD

- Write down the details of sources of ancient India
- Understand in depth birth of new religions
- Write down in details with application, if applicable the Mauryan empire
- Identify the characteristics of the Guptas'

SEMESTER-II : HISTORY OF INDIA (1206 AD 1761 AD)

- Understand in depth Babur's invasion
- Understand in depth of Mughal rule under Akbar
- Learn in details with examples Art and Architecture of Mughal
- Understand in depth sultanate political structure

SEMESTER-III: HISTORY OF MODERN INDIA (1757-1858 AD)

- Learn in depth of conquest of Bengal
- Identify the characteristics of the new economic policy
- Understand in depth trade routes

SEMESTER-IV : INDIAN NATIONAL MOVEMENT 1885-1947

- Understand in depth trade roots
- Write down the characteristics of Britishers
- Learn in detail about conquest f Bengal

SEMESTER-V PAPER V : HISTORY AND CULTURE OF SOUTH INDIA (UPTO 1336 AD)

- Learn in details with examples pallavas of kanchi
- Understand the details of Rashtrakutas

☐ ☐Understand in details with examples Art and Architecture.

SEMESTER-V PAPER VI :STATE AND SOCIETY OF SOUTH INDIA (1336 AD TO 1800 AD)

☐ ☐Learn in details with examples Bhakthi Movement
☐ ☐Identify the details of Sufi Cult
☐ ☐Identify in depth Merchant guilds of South India

SEMESTER-V PAPER VII HISTORY OF ASIA (1800-1950)

☐ ☐Learn the Characteristics of the Boxer rebellion
☐ ☐Understand in details with examples disintegration of ottoman empire
☐ ☐Identify the Classification and characteristics of the Anglo Japanese alliance
☐ ☐Identify the details of the oil crisis

SEMESTER-VI PAPER VIII : HISTORY OF KARNATAKA (1800-1950)

☐ ☐Identify the classification and characteristics of regional languages and literature
☐ ☐Write down in depth Pallava Regime
☐ ☐Identify in details with application, if applicable Regional policy of Education.

SEMESTER-VI PAPER IX : MODERN-WESTERN CIVILIZATION (1789-1945)

☐ ☐Learn the details of the French revolution
☐ ☐Understand in depth Italian Unification
☐ ☐Learn in depth the UNO
☐ ☐Understand in depth Age of Metternich

SEMESTER-VI PAPER X : INDIA AND CONTEMPORARY WORLD 1950 1995

☐ ☐Write down the classification and characteristics of genesis of cold war
☐ ☐Identify in details with examples features of foreign policy
☐ ☐Understand the characteristics of Second World War Arab
☐ ☐Learn the details of Nelson Mandela

COURSE OUTCOMES: DEPARTMENT OF ECONOMICS

SEMESTER-I :INDIAN ECONOMY

☐ ☐To understand the basic characteristics of Economic Development and growth of Indian Economy.

☐ ☐To acquire knowledge about Population, poverty and unemployment.

☐ ☐To identify the role of agriculture and industry.

☐ ☐To gain knowledge on trade, RBI, and financial sector reforms.

☐ ☐To highlight the knowledge about Karnataka Economy.

SEMESTER-II : PRINCIPLES OF MICRO ECONOMICS

☐ ☐To understand the basic concepts of micro economics.

☐ ☐To apply the concept of consumer behaviour with the daily life examples

☐ ☐To define and apply the concept of elasticity.

☐ ☐To define scarcity and show how it relates to the concepts of Choice and cost.

☐ ☐To identify the key elements of markets and models, to gain knowledge about product and factor pricing.

SEMESTER-III : PRINCIPLES OF MACRO ECONOMICS

☐ ☐To understand the basic concepts of macro economics.

☐ ☐To define how economic indicators are used to assess the state of the economy

☐ ☐To gain knowledge about the concepts of Keynesian theory.

☐ ☐To relate the causes and consequences of inflation with the current economic conditions

☐ ☐To acquire knowledge about fiscal and monetary policy, and RATEX.

SEMESTER-IV : MATHEMATICS AND STATISTICS FOR ECONOMICS

☐ ☐To carry out mathematical and statistical proofs to understand economics.

☐ ☐To recognize where and how to use the mathematical and statistical knowledge in economics.

☐ ☐To know about statistical measures such as mean, median, mode for analysis and interpretation of data.

☐ ☐Analyze the different measures of dispersion that are useful in the field of research.

SEMESTER-V : MANAGERIAL ECONOMICS-5

☐ ☐To understand the basic concepts of managerial economics.

☐ ☐To analyze the applications of linear programming.

☐ ☐To gain knowledge about demand forecasting techniques.

☐ ☐To calculate profit and capital management.

☐ ☐To develop the ideas of pricing of commodities and BEP.

SEMESTER-V : ECONOMICS OF DEVELOPMENT-6

☐ ☐To understand the difference between economic growth and development.
☐ ☐To gain knowledge about the factors involved in the process of development.
☐ ☐To develop the familiarity about the general and partial theories of development.

SEMESTER-V : HISTORY OF ECONOMIC THOUGHT-7

☐ ☐To understand the theory of economics in historical perspective.
☐ ☐To gain knowledge about the contribution of various economists to economics.
☐ ☐Create an understanding of development of Economic theory.

SEMESTER-VI : MONEY, BANKING AND PUBLIC FINANCE-8

☐ ☐To discuss the design of the tax structure using the concept of efficiency and equity.
☐ ☐To gain knowledge about the concept of money and banking.
☐ ☐To analyze the functions of modern government.
☐ ☐To recognize the revenue, expenditure and debt concepts in budget.

SEMESTER-VI : INTERNATIONAL ECONOMICS-9

☐ ☐To recognize the causes of trade.
☐ ☐Students can try to understand terms of trade and commercial polices and the role of MNC's.
☐ ☐Analyze BOP and Foreign exchange issues.
☐ ☐To inculcate knowledge about IMF, IBRD, NIEO, SAARC, and BRICS.

SEMESTER-VI : INDIAN ECONOMIC THOUGHT-10

☐ ☐To gain knowledge on the perspectives of Indian economists.
☐ ☐Students will be able to understand the rise of socialism and different institutional thoughts.
☐ ☐To understand the view points of different economic thinkers like Gandhi, Nehru, Ranade, Sir M Vishweshwaraiah.

COURSE OUTCOMES: DEPARTMENT OF GEOGRAPHY

SEMESTER I : PHYSICAL GEOGRAPHY

☐ ☐To understand the importance of longitudes and latitudes.
☐ ☐To know the internal structure of the earth.

 To gain knowledge about the agents of denudation.
 To analyze the composition and structure of atmosphere.
 Relief features of ocean floor and ocean currents

SEMESTER I : PRACTICAL : MAPS AND SCALES, REPRESENTATION OF RELIEF FEATURES AND METEOROLOGICAL INSTRUMENTS

 To understand the types of maps and scales.
 To gain knowledge about operating system of weather instruments.
 To know about the relief features

SEMESTER II : HUMAN GEOGRAPHY

 To analyze the relationship between man and environment.
 To know about the races and modes of life of mankind with religion.

SEMESTER II PRACTICAL : MAP PROJECTIONS

 To learn how to construct cylindrical, conical, Zenithal and conventional projection.

SEMESTER III: REGIONAL GEOGRAPHY OF THE WORLD

 To know about the relief features, mineral resources and power resources of the world.
 To gain knowledge about the human life style and human activities as well as modes of transportation.

SEMESTER III PRACTICAL : CARTOGRAMS AND DISTRIBUTIONS OF MAPS

 To learn constructing thematic maps and graphs.

SEMESTER IV : REGIONAL GEOGRAPHY OF INDIA

 To understand the location, physiographic, drainage, climate and vegetation of India.
 To gain knowledge about the features, problems and prospects of Agriculture.
 To analyze the human resources, power and mineral resources.

SEMESTER IV PRACTICAL : BASIC STATISTICS

 To apply the statistical equations to forecast geographical conditions of the world.

SEMESTER V -5: GEOGRAPHY OF INDIA PART-I

□ □To understand the location, physiographic, drainage, climate and vegetation of India.
□ □To gain knowledge about the features, problems and prospects of Agriculture and multipurpose
river valley projects in the development of agriculture.
□ □To analyze the importance of soil in agriculture.

SEMESTER V-5 PRACTICAL: CARTOGRAMS

□ □To learn constructing thematic maps and graphs.

SEMESTER V -6: REGIONAL GEOGRAPHY OF KARNATAKA

□ □To understand the location, physiographic, drainage, climate and vegetation of Karnataka.
□ □To analyze the role of different sectors of Karnataka economy.

SEMESTER V-6 PRACTICAL : INTERPRETATION OF INDIAN TOPOGRAPHICALMAPS AND INDIAN DAILY WEATHER REPORT.

□ □To learn how to draw topographical and weather maps of India.

SEMESTER VI – 7 GEOGRAPHY OF INDIA PART-2

□ □To gain knowledge about population, industries, Trade, natural resources, transportation and tourism of India.

SEMESTERVI-7 PRACTICAL :APPLICATION OF STATISTICAL METHODS IN GEOGRPHY

□ □To apply the statistical equations to forecast geographical conditions of the world.
□ □To prepare socio economic survey of village.

SEMESTER VI – 8 ECONOMIC GEOGRAPHY OF THE WORLD

□ □To understand the field, nature, importance, scope and approaches of economic geography.
□ □To analyze the role of different sectors of Global economy.

SEMESTERVI-8 ELEMENTS OF SURVEYING AND GIS

□ □To investigate components and function of GIS and its data models.
□ □To make out the different survey techniques.

COURSE OUTCOMES: DEPARTMENT OF POLITICAL SCIENCE

SEMESTER-1 : INTRODUCTION ON POLITICAL SCIENCE

Understanding the meaning to have knowledge about elements, theories of freedom rights, liberty,
equality and justice

SEMESTER-2 : INDIAN GOVERNMENT AND POLITIES

Development of Constitution features of constitution, fundamental rights, duties, Union Government
and judiciary election commission and planning commission.

SEMESTER -3 : MAJOR POLITICAL IDEOLOGIES

Political ideology, nationalization, liberalism, socialism and power of democracy.

SEMESTER-4 : INTRODUCTION ON INTERNATIONAL RELATIONS

Students'knowledge about the growth of international discipline, national power, foreign policy, diplomacy, war, united nations achievements non alignment.

SEMESTER-5: PAPER-1POLITICAL THOUGHT

Understand piatos ideal state, Aristotle classification of state, kautilya, saptanga theory, mahatma Gandhi nonviolence and AmbedkarMaulanaazad.

SEMESTER-5 : PAPER-2 : POLITICAL SOCIOLOGY

Knowledge about importance of political sociology, elite theories, political culture, class community
party system new rural urban group in polities.

SEMESTER-5PAPER-3 : PUBLIC ADMINISTRATION

Understanding the scope and nature of political science, organization, principles of administration, civil

services budget and accounting and auditing.

SEMESTER-6PAPER-1 : INDIAN GOVERNMENT AND POLITIES

Development and features of constitution, fundamental rights duties, union government and judiciary
election commission and planning commission.

SEMESTER-6PAPER-2: PUBLIC POLICY

An understanding the various constituencies that influence how policy is made and the theoretical
underpinnings of real life policy choices.

SEMESTER-6PAPER-3: INTERNATIONAL RELATIONS

Skill identify comprehensive paradigm of multi-disciplinary nature of international relations interpret
the external and internal dynamics of foreign policy decision making processes. Develop skills for team
work group project and presentations.

CONSTITUTION OF INDIA is made as the compulsory paper for the students of I and II semesters to
impart the knowledge about framing of the Constitution and major features of the constituent Assembly
at work preamble and salient feature of Citizenship, Fundamental Rights, directive principles of State
policy, Fundamental Duties etc.

COURSE OUTCOMES: DEPARTMENT OF OPTIONAL KANNADA

SEMESTER-1 : HOSAGANNADA KAVYA MATHU KANNADA SAHITHYA CHARITHRE-1

 Deliberate the characteristics of Modern poems of 20th century, DaraBendre
 Learn in details with application, if applicable, Modern poems of 20th century, GopalakrishnaAdiga.
 Write down the details of Modern poems of 20th century.
 Write down the details of scope and uses of history of Kannada literature.

☐ ☐Understand the classification and characteristics of champu literature
☐ ☐Specify in details with application, if applicable, vachanasahitya

SEMESTER-2 : HOSAGANNADA NAATAKA MATHU KANNADA SAHITHYA CHARITHRE-2

☐ ☐Identify in depth modern drama written by SamsaVigadaVikramaraya.
☐ ☐Introduction to Mysore Empire and his administration.
☐ ☐Enact the dram on stage.
☐ ☐Identify in details with application, if applicable, Bhagavatha and Daasasahithya
☐ ☐Learn the characteristics of hosagannadaarunodaya
☐ ☐Specify in details with examples stages in modern Kannada literature
☐ ☐Deliberate in details with examples Navodayapoets
☐ ☐Learn in depth Pragathisheela and modern poets
☐ ☐Write down the details of Dhalitha /Bandaya poets
☐ ☐Specify the classification and characteristics of Feminist writers

SEMESTER -3NADUGANNADA KAVYA-1 & HALAGANNADA VYAKARANA-1

☐ ☐Understand in depth HariharanaNambiyannanaRagale
☐ ☐Specify in details with examples speciality of HariharanaNambiyannanaRagale
☐ ☐Learn in depth limitations of HariharanaNambiyannanaRagale
☐ ☐Deliberate in depth shabdamanidharpana-101 sutra
☐ ☐Identify in depth sanyaprakarana
☐ ☐Learn the classification and characteristics of naamaprakarana
☐ ☐Deliberate in details with examples sandhiprakarana

SEMESTER-4 : NADUGANNADA KAVYA – 2& HALLEGANNADA VYAKARANA-2

☐ ☐Introduction : Harishchandrakavya
☐ ☐King Harishchandra's character, life history – study
☐ ☐'SathyakeSavilla", "SathyavembudeHaranu" - motto of the Kavya
☐ ☐Write down the classification and characteristics of Namaprakarana
☐ ☐Write down the classification and characteristics of samasaprakarana
☐ ☐Identify in details with application, if applicable, akyathaprakarana
☐ ☐Identify in depth dhathuprakarana
☐ ☐Specify in details with examples thadhithanthaprakarana

SEMESTER-5: HALAGANNADA GADYA- PAPER V

☐ ☐Understand the details of stories like Panchatantra, Vaddaradane and dharmamrutha.
☐ ☐Specify the details of Old Kannada prose literature.

SEMESTER-5 :BHARATHIYA KAVYA MEEMAMSE -PAPER VI

- Specify in details with application, if applicable, Indian poetics origin/development
- Deliberate in details with examples characterstics/sources/uses of poetry
- Understand in details with application, if applicable, stages of Indian poetics
- Understand the characteristics of AlankaraPrasthana
- Specify the classification and characteristics of ReethiPrasthana
- Learn the classification and characteristics of Dhwaniprasthana
- Specify in details with examples Rasa Prasthana
- Write down the details of Vakrokthi/Auchityasiddantha

SEMESTER-5: KANNADA BHASHA CHARITHRE- PAPER VII

- Identify in depth characterstics& uses of Kannada language
- Write down the details of Indian languages and Dravidian languages
- Understand the characteristics of etimology of Kannada word
- Specify the classification and characteristics of relation of Kannada and Sanskrit language
- Understand the characteristics of stages of Kannada language
- Write down the characteristics of vocabulary of Kannada
- Deliberate the characteristics of differences and Dhvani /Artha

SEMESTER-6 : HALEGANNADA KAVYA – CHAMPOO- PAPER VIII

- Understand the characteristics of Speciality of old Kannada literature
- Deliberate in details with application, if applicable, Karnataka Kadambari by Nagavarma-2
- With the help of characters like Mahashwethe ,Chandrapeeda and Pundareka – nagavarma trying to explain the true friendship and the value of life.
- Specify in details with examples Analysing old Kannada literature

SEMESTER-6: SAHITHYA VIMARSHEYA THATHVAGALU MATHU PRAYOGIKA VIMARSHE - PAPER IX

- Deliberate the details of philosophy & characteristics of criticism
- Specify the characteristics of concepts of criticism
- Identify the details of imitation/decorum/sublime
- Specify in details with application, if applicable, modern concepts of criticism
- Identify the characteristics of psychological/historical/feminist criticism
- Understand in details with examples construction/deconstruction criticism
- Learn in details with examples theories/characteristics of practical criticism

▢ ▢Specify in details with examples application of practical criticism

SEMESTER-6 : CHANDASSU -PAPER-X

▢ ▢Write down the details of meaning & importance of poetry
▢ ▢Write down in details with application, if applicable, different types of matras
▢ ▢Write down the details of varna/matra/amshavrutha/hosagannadachandassu
▢ ▢Identifying the type of poem using prastara in practical.

COURSE OUTCOMES: DEPARTMENT OF SOCIOLOGY

I semester BA   paper-1 **Introduction to Sociology**

The course is intended to introduce the students to a sociological way of thinking. It provides an understanding of the discipline of Sociology and sociological perspective. It also provides foundation for other more detailed and specialized course   in sociology .Students will be able to

- Define Sociology and demonstrate nature, scope and subject-matter of Sociology.

- DemonstratehowSociologydifferfromandsimilartoothersocialsciencesandtheirareasof interdependence.

- AcquaintthemselveswiththebasicconceptsofSociologylikesociety,community,association,culture, social change, social stratification etc.

- Knowthebasicsocialinstitutionslikefamily,marriage,kinshipinascientificway.

- Understandanddemonstratehowselfdevelopsthroughvariousprocessofinteraction.Demonstratehowsocietal and structural factors influence individual behaviour.

- Explainsocialchangeandthefactorsaffectingsocialchange.Realizetheimportanceofculturallagtounderstandsocial change.

II semester BA   paper-2 **Foundation of sociology**

The course is intended to introduce the students to a sociological way of thinking. It provides anunderstandingofthedisciplineofSociologyandsociologicalperspective.Italsoprovidesfoundationforothermoredetailedand specialized courses in sociology .Students will be ableto
- Evaluate the conceptual framework of Indian social system.
- Understand the dynamics of social institutions and application of different theoretical well as methodological perspective of studying Indian society .

- Acquit with contemporary Indian society in terms of caste, class, religion and race.
- To study the relevance of social institution.
- To study the concepts of social change and its dynamics

III semester BA   paper-3   **Indian Society ; Part -1**

This course is intended to introduce the students to basic social institutions to describe Indiansocietyandcultureofdifferentperiodsfrompre-historytomodernera.Italsoprovidesknowledge about various social processes that play significant role in bringing about changes in Indian Society and Culture. Studying the course students will be able to

- Explore the roots of Indian civilization.

- Know economy, polity and society of ancient ,medieval and modern India.

- Understand and analyze the key concepts of Hinduism ,Jainism, Buddhism,