

PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES, COURSE OUTCOMES

PROGRAMME OUTCOMES

Students of all undergraduate Programmes under Autonomy Scheme at the time of graduation should be able to have

- PO1. INDEPENDENT MIND:** Develop a spirit of enquiry; think and act independently, without pride or prejudice. Weigh all facts impartially, explore different possibilities, examine various perspectives, form own ideas and take informed and empathetic decisions
- PO2. SOCIAL RESPONSIBILITY:** Understand the fundamental connectedness of all individual beings and societies. Think and work in such a way that personal efforts also foster social well being and national and global development.
- PO3. SENSE OF VALUES AND ETHICS:** Learn to form and follow higher ideals. Appreciate the importance of ethical practices. Accord the highest position to values in life. Be compassionate and helpful to others.
- PO4. EFFECTIVE COMMUNICATION SKILLS:** Develop not only basic skills in one's own language and English but also skills of persuading and convincing others, all in an open and democratic manner. Also develop skills essential for modern day communication like use of computers, the internet, social media etc.
- PO5. CO-OPERATIVE ACTION:** Develop a sense of team work. Be a leader as well as a partner, and set models for others to emulate.
- PO6. CONCERN FOR BOTH DEVELOPMENT AND ENVIRONMENT:** Learn to see the socio-economic significance of development and the ecological significance of environmental protection and work towards evolving a meaningful balance between the two imperatives of contemporary human life.
- PO7. LOVE FOR KNOWLEDGE:** Develop a life-long passion for knowledge, both for its own sake and for its application in day-to-day life, and for sharing it with others and for expanding it continuously.
- PO8. ALL-ROUND PERSONALITY:** Evolve an authentic and well-rounded personality, rich in intellectual, aesthetic, material, moral, social and spiritual dimensions.

PROGRAMME SPECIFIC OUTCOMES

BA – KANNADA (OPTIONAL)

- PSO1.** Understand the fundamental concepts and the basic nature of literature in general and the significance of literary studies
- PSO2.** Learn to see the organic links between life and literature, through the specific study of Kannada literature
- PSO3.** Place literature in the context of all arts and understand its uniqueness, its strengths and limitations
- PSO4.** Develop sensitivity and critical sensibility regarding not only literature but life too.

COURSE OUTCOMES

- CO1.** Develop knowledge of different forms and genres of literature, with specific reference to Kannada literature
- CO2.** Be conversant with the various periods in Kannada history and their influence on literature
- CO3.** Gain knowledge about different schools of criticism and their distinct features
- CO4.** Be familiar with the great Kannada writers, their works and their significance
- CO5.** Have an understanding of the ways in which Kannada has interacted with neighboring and other Indian languages
- CO6.** Possess an ability to critically appreciate literary works, trends, movements, influences and the like
- CO7.** Gain a perspective on world literature through the window of Kannada literature
- CO8.** Have the ability to appreciate the place of literature in the context of all arts

PROGRAMME SPECIFIC OUTCOMES

BA ENGLISH (OPTIONAL)

- PSO1.** Understand the fundamental concepts and the basic nature of literature in general and the significance of literary studies
- PSO2.** Learn to see the organic links between life and literature, through the specific study of literature available in English
- PSO3.** Place literature in the context of all arts and understand its uniqueness, its strengths and limitations
- PSO4.** Develop sensitivity and critical sensibility regarding not only literature but life too.

COURSE OUTCOMES

BA ENGLISH (OPTIONAL)

- CO1.** Develop knowledge of different forms and genres of literature, with specific reference to literature available in English
- CO2.** Be conversant with the various periods in English and world history and their influence on literature
- CO3.** Gain knowledge about different schools of criticism and their distinct features
- CO4.** Be familiar with the great writers in English and in English translation, their works and their significance
- CO5.** Have an understanding of the ways in which English has interacted with other world languages
- CO6.** Possess an ability to critically appreciate literary works, trends, movements, influences and the like
- CO7.** Gain a perspective on world literature through the window of literature in English
- CO8.** Have the ability to appreciate the place of literature in the context of all arts

PROGRAMME SPECIFIC OUTCOMES

BA HISTORY

- PSO1.** Understand the fundamental concepts and the basic nature of the study of history
- PSO2.** Learn to see the significance of the study of history
- PSO3.** Locate history in the context of various modes of human self-awareness and expression
- PSO4.** Use knowledge of history to shape a better present and future.

COURSE OUTCOMES

BA HISTORY

- CO1.** Gain knowledge about the social, religious, political, economic conditions governing ancient India
- CO2.** Be conversant with the various developments in medieval India, and with achievements made in fields like the arts, sculpture, literature, music
- CO3.** Acquire knowledge about the history of Karnataka – its dynasties, important periods, rulers, administration, turning points, arts, sculpture etc.
- CO4.** Study major developments in European history, particularly transition to the modern era, industrialization, the growth of science and technology, the rise of imperialism and colonialism, wars, etc
- CO5.** Gain a perspective on the major events of Asian history, with focus on countries like India, China, Japan, Iran, Israel, and the leading public figures of these countries
- CO6.** Develop an ability to critically examine historical events, trends, movements, influences and the like

PROGRAMME SPECIFIC OUTCOMES

BA SOCIOLOGY

- PSO1.** Understand the fundamental concepts and the basic nature of the discipline of sociology
- PSO2.** Learn to see the constantly changing nature of social structures and their purposes
- PSO3.** Understand and appreciate the basic bonds between individuals and societies/communities
- PSO4.** Use knowledge of sociology as a means to improve the human condition.

COURSE OUTCOMES

BA SOCIOLOGY

- CO1.** Gain knowledge about the diversity of Indian culture and civilization and the underlying unity
- CO2.** Be conversant with the different social structures and institutions found across Indian history
- CO3.** Acquire knowledge about India's major social problems like the caste system, discrimination, communalism, regional disparity, linguistic inequality, gender bias
- CO4.** Study major Indian social reform movements, their leading figures and their impact
- CO5.** Gain a perspective on the Western influences on Indian society
- CO6.** Develop a critical understanding of both macro- and micro-level sociological processes related to the history of the whole mankind

PROGRAMME SPECIFIC OUTCOMES
BA ECONOMICS

- PSO1.** To provide the students with a unique opportunity of obtaining a professional qualification in economics focusing on the advanced practical areas
- PSO2.** To provide skills equipping them to wield the rigours of the sophisticated managerial positions in industry and business, careers in policy making and public service.
- PSO3.** To provide students a well-rounded education in economics.
- PSO4.** To prepare the students for scientific research in economics.
- PSO5.** Use knowledge of economics to shape a better present and future.
- PSO6.** Student will be able to describe how economic trade-offs and social values impact public/private policy.
- PSO7.** Economics students in general will be able to pinpoint and understand the past, present economic conditions of the country.
- PSO8.** The student able to forecast the future course of changes and development through their knowledge of policies and programmes set by the governments and other development agencies.
- PSO9.** The Student is familiar with the knowledge and application of microeconomics and macroeconomics for the formulation of policies and planning. They are equipped with all the relevant tools/knowledge based on economic principles including market functions and structures, efficiency in manpower and resources management, need of credit/finance for initiating and accelerating project.
- PSO10.** After the course students would able to realize the importance and influence of environment on the economy including the quality of manpower.
- PSO11.** To provide and adopt curricula which support the academic development of students.
- PSO12.** Students will understand and demonstrate core macro-economic terms, concepts and theories.
- PSO13.** Prepare for employment and further study as economists working in a wide range of specialization.

COURSE OUTCOMES

BA ECONOMICS

- CO1.** After the completion of the course the student will able to define and explain the process of calculating national income, identify its components, demonstrate circular flow of income, analyse the various income identities with government and international trade.
- CO2.** To gain knowledge of the causes of regional variation in productivity and production, social and economic inequality, size of land holdings and lack of quality inputs etc and suggest appropriate measures for the whole economy.
- CO3.** After completion of the course, the students would be able to identify the basic difference between inter-regional and international trade, understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories.
- CO4.** Student would be able to understand the sources of finance both public and private, taxation, budgets, public borrowing. Understand the changes in size and flexibility of state and central budget along with the role played by finance.
- CO5.** The student able to develop ideas of the basic characteristics of Indian economy, its potential on natural resources, theoretical, empirical and policy issues relating to the society, polity, and economy of India.
- CO6.** Students will understand and demonstrate core macro-economic terms, concepts and theories.
- CO7.** The Student is familiar with the knowledge and application of microeconomics and macroeconomics for the formulation of policies and planning. They are equipped with all the relevant tools/knowledge based on economic principles including market functions and structures, efficiency in manpower and resources management, need of credit/finance for initiating and accelerating project.
- Different schools of Economic thought, theories
 - Theories and Strategies of Growth and Development
 - Banking – history, development, basic concepts, principles, and practices.
 - Cost Analysis-different types of costs, traditional and modern theories of cost.

PROGRAMME SPECIFIC OUTCOMES

MATHEMATICS

- PSO1.** Understand the basics of fundamental branches of mathematics, like Modern Algebra, Topology, Linear Algebra, Number Theory, Geometry of Space Curves, Complex Analysis, Graph Theory, Numerical Analysis, Differential and Integral Calculus, etc.
- PSO2.** Develop the skill of mathematical reasoning and apply it to creative problem-solving real-life situations.
- PSO3.** Acquire knowledge of a wide range of mathematical techniques and application of mathematical methods/tools in other scientific and engineering domains.
- PSO4.** Gain acquaintance with latest mathematics-based software like Matlab, Scilab, and Maxima
- PSO5.** Gain understanding of number theory and its applications in modern online cryptographic technologies.
- PSO6.** Acquire advanced knowledge of topics in pure mathematics, and thereby gain requisite competence to pursue higher studies and research.

COURSE OUTCOMES

MATHEMATICS

- CO1.** Understand Algebraic concepts like Group Theory, Structure of Permutation Groups, Polynomial Rings and Eisenstein's Irreducibility Criterion.
- CO2.** Learn about Basic Topology concepts like Topological Spaces, Connectedness, Compactness, etc.
- CO3.** Learn about Complex Analysis basics like Analytic Functions, Cauchy- Riemann Equations, Harmonic Functions, Cauchy's Integral Formula, Residual Theorem and Liouville's Theorem.
- CO4.** Gain understanding of Linear Algebra, Linear Dependence, and Linear Independence, Eigen Values, and Application of Matrix Algebra.

- CO5.** Understand concepts of Elementary Number Theory like Fermat's Theorem, Euler's Phi function, Euler's Theorem, and Simultaneous Congruences.
- CO6.** Learn the basics of Differential Equations like Solving First & Second Order, First Degree Homogeneous Linear Differential Equations.
- CO7.** Understand Laplace Transforms, and its application in solving Differential Equations and Electric Circuit Problems.
- CO8.** Learn Fourier Series, like half-range sine and cosine series and its applications.
- CO9.** Understand Linear Programming and Maximisation and Minimisation Problems thereof and its applications.
- CO10.** Learn the basics of Graph Theory like Tree, Paths, Euler and Hamiltonian Graph, and their application.

PROGRAMME SPECIFIC OUTCOMES

PHYSICS

- PSO1.** Gain knowledge about all aspects and historical stages of Physics like Classical Physics, Quantum Mechanics, Electro-magnetic Theory, Optics, Special Theory of Relativity, Modern Physics & Electronics, Sound, Waves & Radiation, Nuclear Physics, Solid State Physics, X-rays, Elementary Crystallography, Astrophysics & Cosmology.
- PSO2.** Acquire ability to design and conduct experiments, demonstrating their understanding of the scientific method and process involved.
- PSO3.** Develop proficiency in acquisition of data using variety of laboratory instruments and in analysis and interpretation of such data.
- PSO4.** Gain ability to apply conceptual understanding of Physics to general day-to-day situations.
- PSO5.** Develop ability to solve physical problems and develop effective solutions using data and formulae.
- PSO6.** Acquire written and oral communication skills to present various Physics related topics effectively.

COURSE OUTCOMES

PHYSICS

- CO1.** Understand the relationship between theory and observation and their use in building the basic concepts of Physics.
- CO2.** Learn about the basic concepts of Mechanics like Frames of Reference, Conservation of Linear Momentum, Angular Momentum & Conservation of Energy.
- CO3.** Gain knowledge about the basic concepts of Sound, Waves & Radiation, Oscillations.
- CO4.** Learn about the basic concepts of Geometrical Optics and Wave Optics, such as Interference, Diffraction, Polarization, Aberrations.

- CO5.** Understand the fundamental concepts of Electricity, Analysis of AC and DC circuits, and basics of Electronics.
- CO6.** Learn the basic concepts of Atomic Physics, Astrophysics, Lasers, and Cosmology.
- CO7.** Understand the fundamental concepts of Solid State Physics, Nuclear Physics, and Electronic Circuits.
- CO8.** Gain knowledge about the basics of Special Theory of Relativity, General Theory of Relativity, Elementary Quantum Mechanics, Nuclear & Particle Physics.
- CO9.** Acquire ability to use Electromagnetic theory and principle in a wide range of applications.
- CO10.** Gain confidence in using mathematical methods to understand and solve electromagnetic problems in real life situations.
- CO11.** Develop a passion for higher studies, research related to Physics.
- CO12.** Gain a perspective on the interdependence of Physics with other branches of science and human knowledge like Philosophy.

PROGRAMME SPECIFIC OUTCOMES

CHEMISTRY

- PSO1.** Understand the fundamental concepts and the basic nature of the discipline of Chemistry.
- PSO2.** Learn about the development of laws and theories and the contributions of major scientists through the history of Chemistry.
- PSO3.** Understand the internal structure of matter, and the uniqueness and relevance of different branches like Organic, Inorganic, Physical, and Analytical Chemistry.
- PSO4.** Learn techniques and applications of Chemistry in industry, medicine, etc.
- PSO5.** Develop interest in higher studies, research, and innovation in and through Chemistry.

COURSE OUTCOMES

CHEMISTRY

- CO1.** Learn data calibration, detection and correction of error.
- CO2.** Gain knowledge about Thermodynamics, its laws and applications in industry.
- CO3.** Learn about the nature, structure, function, and uses of carbohydrates and proteins.
- CO4.** Acquire knowledge about processes like corrosion, electroplating, extractions
- CO5.** Understand the basics of spectroscopy and learn of its applications
- CO6.** Learn about the nature, structure, constitution, and application of fuels and petro-chemicals.
- CO7.** Gain understanding about the nature, use, and importance of vitamins and hormones.
- CO8.** Acquire knowledge about the research, manufacture, use related to drugs and explosives
- CO9.** Learn about nuclear fission and fusion, advantages and disadvantages, nuclear reactors and energy.
- CO10.** Gain knowledge about principles behind battery-making, working, and use.

PROGRAMME SPECIFIC OUTCOMES

B.Sc., BOTANY

- PSO1.** Understand the fundamental concepts and the basic nature of the discipline of botany
- PSO2.** Identify the taxonomic positions and the economic importance of plants
- PSO3.** Understand the cellular and physiological activities of plants
- PSO4.** Learn techniques and applications of plant tissue culture, hybridization etc.

COURSE OUTCOMES

B.Sc., BOTANY

- CO1.** Identify taxonomic positions of plants by their respective key characteristics
- CO2.** Acquire knowledge about each and every part of plants and their vital role in survival in every aspect such as physiological, ecological, and anatomical
- CO3.** Understand the nature of viruses, bacteria, fungi, pteridophytes, gymnosperms according to their morphological and anatomical characteristics
- CO4.** Learn about major forms of pollution and pollutants
- CO5.** Acquire knowledge about agricultural practices and techniques like tissue culture, hybridization etc.
- CO6.** Gain a perspective on the crucial role of plants for human life and welfare

PROGRAMME SPECIFIC OUTCOMES

B.Sc., ZOOLOGY

- PSO1.** Understand the fundamental concepts and the basic principles of Zoology.
- PSO2.** Learn the taxonomy, anatomical aspects of different groups of animals.
- PSO3.** Understand the process of evolution and significance of fossils, fossil-formation, and their importance in understanding of organic evolution, including human evolution.
- PSO4.** Learn the components, functions, significance of eco-systems, with relation to pollution, wildlife conservation, etc.
- PSO5.** Understand the structure of bio-molecules and physiological activities in humans.
- PSO6.** Learn techniques and applications of animal histology, histo-pathology and bio-technology, etc.
- PSO7.** Understand inheritance, development of animal embryo, the immune system and vaccines.
- PSO8.** Learn about animal behaviour and economic zoology.

COURSE OUTCOMES

B.Sc., ZOOLOGY

- CO1.** Identify the taxonomic positions of animals by their respective key characteristics.
- CO2.** Acquire knowledge about bio-molecules, anatomy, physiology, immunological aspects and their vital role in survival of organisms.
- CO3.** Learn about major forms of pollution, pollutants, wildlife, and significance of wildlife conservation.
- CO4.** Gain knowledge about fossils and different types of speciation.

CO5. Learn about principles of inheritance, genetic disorders, and applications of biotechnology.

CO6. Acquire knowledge about developmental stages of chick and human embryos.

CO7. Learn about functions of hormones and animal behaviour.

CO8. Identify types of tissues, their functions, and pathological implications.

CO9. Acquire knowledge about dairy farming, sericulture, aquaculture, pisciculture and apiculture, which help in self-employment.

CO10. Learn about various biological techniques like sterilization, centrifugation, chromatography, calorimetry, electrophoresis, pH metre.

PROGRAMME SPECIFIC OUTCOMES

Bachelor of Commerce

PSO1. Acquire knowledge about various forms of accounting like financial accounting, cost accounting, corporate accounting, management accounting, etc.

PSO2. Gain knowledge about the fundamentals of managerial economics, and learn to analyze and apply the concepts therein in practical business environment.

PSO3. Learn about the origins, development, features, structures, and functioning of major economic sectors like banking, insurance, etc.

PSO4. Gain knowledge about crucial tools like mathematics, statistics, quantitative techniques etc. and the importance of their use in commerce.

PSO5. Learn about principles of management and administration and their practice in domestic and global business.

PSO6. Acquire knowledge about the foundational concepts of international business and their applications.

PSO7. Learn about the theory and practice of human resource management and human resource development and their importance in modern business world.

PSO8. Learn about the principles and practice of auditing.

PSO9. Acquire knowledge about theory and practice of income tax.

PSO10. Learn about various laws related to different types of business, like partnership, joint stock companies, co-operative societies, etc.

COURSE OUTCOMES

Bachelor of Commerce

CO1. Gain acquaintance with the basic principles of Financial Accounting and procedures pertaining to the preparation of relevant accounts for different kinds of business establishments.

CO2. Learn about Principles of Management and Managerial Practice.

CO3. Have an understanding of the concepts and practices related to different types of marketing and the application of the managerial approach to marketing challenges.

CO4. Gain knowledge about the Laws of Banking Operations, Insurance and Other sectors of business and their practical functioning.

CO5. Learn about the fundamentals of International Business Environment and the impact of foreign market operations on firms.

CO6. Acquire understanding of the principles, procedures, and regulations of preparing the accounts of corporate enterprises.

CO7. Gain ability to understand and apply the mathematical and statistical techniques to practical business problems.

CO8. Acquire familiarity with the basic legal provisions and procedural aspects of Income Tax.

CO9. Gain mastery in the fundamentals of Cost Accounting, Elements of Costs and Reconciliation.

CO10. Earn knowledge about theoretical and practical aspects of Management Accounting relevant for business undertakings and managerial decisions.

CO11. Gain understanding of the theoretical and practical aspects of entrepreneurship development.

CO12. Acquire understanding of and expertise in different dimensions of Auditing of various types of accounts.

BACHELOR OF COMPUTER APPLICATIONS

Program Specific Outcomes

Students, by the time of graduation, should --

PSO1. Develop understanding of the fundamental concepts related to computers and computer science, both theoretically and practically.

PSO2. Gain ability to go through the internals, hardware and software components, of the computers that are responsible for carrying out specified operations.

PSO3. Acquire capacity to analyse problem domains so as to design the steps to solve the problems and develop the required solutions through computers using programs.

PSO4. Learn the science and art of writing programs and thereby developing software.

PSO5. Acquire knowledge of various methodologies (paradigms) that can be made use of in program development.

PSO6. Develop skills to apply the theoretical knowledge gained in program / software development.

PSO7. Gain a perspective on the use and significance of computer science in the context of human history as a whole.

PSO8. Grow an appreciation of the organic links between computer science and other branches of science, especially physics, mathematics, logic, and natural human languages.

Course Outcomes

Students, by the time of graduation, should-

CO1. Have in-depth knowledge of internal representation of data, information and instruction.

CO2. Develop ability to collect, organize and store the data temporarily as well as permanently.

CO3. Acquire understanding of the internal representation and processing of instructions.

CO4. Develop capacity to design solutions to problems after analysing them using algorithms, flowcharts, Data Flow Diagrams (DFD), Use Cases (UC), and other Unified Markup Language (UML) tools.

CO5. Gain professional skills in developing programs according to given designs.

CO6. Be able to use the programming paradigms like Procedure Orientation and Object-Oriented in program development.

CO7. Possess thorough knowledge of software development, phases involved, cost estimation, testing, debugging, coding standards and integration.

CO8. Have ability to develop, configure and execute the programs for remote computers.

CO9. Gain comprehensive understanding of Internet architecture and network programming.

CO10. Acquire in-depth knowledge of the protocols, protocol architecture and various standards related to the Internet.