

## **PROGRAM SPECIFIC OUTCOMES(PSOs)**

### **1. Physics**

**UG (Hons.)** - At the completion of the course, students will have grasp on basic tenets of physics, mathematical and computing skills, interpretation of naturally occurring phenomena.

### **2. Chemistry**

**UG (Hons.)** - On the completion of the course, students will be familiar with fundamentals of Inorganic, Organic and Physical skills with good analytical skills and problem solving techniques.

### **3. Botany**

**UG (Hons.)** - On the completion of the students will have well groomed concepts and information on trees and plants, forestry, biodiversity etc.

### **4. Zoology**

**UG (Hons.)** - On the completion of the course, The students will be familiar with the theory of human evolution, various systems of adaptation and dentition in mammals, creation of life by cell and health awareness in the society.

### **5. Mathematics**

**UG (Hons.)** - On the completion of B.Sc (Hons) Mathematics students will have critical understanding of solving complex problems, interpreting data, learning of theories of Mathematics and their application to the real world.

### **6. B.C.A**

On the completion of the program, students will acquire technical comprehension in varied areas of Computer Application to be applied to computer based industries/ organization and to conducive environment in cultivating skills for thriving career and higher studies. 3

### **7. BBM**

On the completion of the program, students will be able to take up challenging careers in business and industries. This will provide in-depth studies of business to serve as foundation for higher studies. This will improve the analytical and computing skills of the students.

### **8. Psychology**

(a) **UG (Hons.)** - On the completion of the program the students will have better understanding of basic theories underlying the human behavior, skills needed to solve the problems faced by human beings and students will be able to apply the skills gained during the program at clinical/industrial areas.

(b) **M.A. (Psychology)** - On the completion of the course, the students will have critical understanding of measurement issues and techniques in psychological enquiry. It will provide strong research oriented theoretical and practical foundation in recent advances in psychology to the students. The will learn the application and contextual interpretation of from psychological measurements students will be able to have in-depth understanding of cognitive processes in terms of current theories models and application.

### **9. Economics**

(a) **UG (Hons.)** - On the completion of the program the students be equipped with adequate knowledge to analyses the Micro and Macro theories and to understand the working of Indian and world Economic Scenario and contribution of Business Statistics and Mathematics in Economic theories.

(b) **M.A. (Economics)** - On the completion of the program, students will be equipped with requisite knowledge and skills to evaluate pros cons and challenges of entrepreneurial ventures and insight into fields of energy economics, industrial economics, financial markets etc. They will be able to analyses the

socio-political and economics issued related to national and international scenario, to utilize the research spheres of economics and to develop knowledge about monetary policy economic planning, production, demand, marketing options etc.

#### **10. History**

(a) **UG (Hons.)** - On the completion of the program, students will have an understanding of past religion, customs, institutions, administration and present existing social, political, religious and economic conditions of the people. They will be able to develop practical skills like drawing of historical maps, charts diagrams, historical models etc. to facilitate understanding of historical events.

(b) **M.A. (History)** - On the completion of the program, students will be able to analyze socio- economic, religious and political conditions of India through the ages, identify the important events of history of Bihar, to have a clear picture of world History and its impact in global economic environment and social contexts. They will have requisite knowledge about the developments of art, architecture and various styles of architecture in India.

#### **11. Sociology**

(a) **UG (Hons.)** - On the completion of the program, students will be acquainted with social relations, social transactions, social formations, social control, social transactions, social formations, social control, social values and culture, social groups like tribal community. They will be able to know the significance of social institutions, caste system, religion, nationalism, integrity, equality and justice.

(b) **M.A. (Sociology)** - On the completion of the program, students will be able to comprehend fundamental concepts and theories in acquiring skills for sociological imagination, research methods and methodologies in studying social realities and to achieve critical sensibility towards social, economic and political processes and their impact, applying sociology and enhance employability.

## **12. Political Science**

(a) **UG (Hons.)** - On the completion of the program, students will be able to understand the concept and origin of power and different types of power relationship, government mechanism. Its functions duties and responsibilities, constitution of India, Political laws, attributes of appropriate and efficient political leaders.

(b) **M.A. (Political Science)** - On the completion of the program, students will be able to understand the comparative politics, Indian Government and politics, Modern Political Ideologies, theory and practice of diplomacy, manner in which international systems work, Political Economy, social movements and contemporary concerns. It will lay solid foundation to carry out researcher in various spheres of Political Science.

## **13. Philosophy**

**UG (Hons.)** - On the completion of the program, students will be able to comprehend Epistemology, Metaphysics and Axiology and will be empowered with intellectual strength and power of ideas, a way of meaningful life.

## **14. English**

**UG (Hons.)** - Upon completion of the program, students will be able to understand the evolution, development of English literature, discern the Contemporary social, economic and political issues on national and international levels. They will be able to speak and write by enriching Vocabulary and articulating ideas in English.

## **15. Hindi**

(a) **UG (Hons.)** - Upon completion of the program, students will be able to comprehend Hindi Literature, Literary works, poetry etc. in more effective way and will develop competency in speaking, writing/expressing their thoughts cogently and comprehensibly.

(b) **M.A. (Hindi)** – On completion of the program, students will have in-depth understanding of Hindi Literature, the relation between society and literature and role played by Hindi literature in past and present. They will develop proficiency in writing official writings and functional Hindi. Students will have mastery over the trends, movements and literary forms of ancient and modern Hindi Literature, new literary forms, media writing, electronic media and various new movements in Creative Writing.

## COURSE OUTCOMES (Cos)

### 1. Physics

- (c) To learn rudiments, terminologies, essential scruples of all branches of Physics.
- (d) To understand and interpret physical information, mathematical and graphical presentations.
- (e) To be able to perform experiments and interpret the result of observation.
- (f) To have sound foundation of Mathematics and its linkages to physics.
- (g) To use ICT to gather information and to gain requisite computer skills.

### 2. Chemistry

- (i) To impart broad outline of inorganic, organic and physical chemistry to students.
- (ii) To develop ability to apply principles of chemistry to the problems.
- (iii) To develop practical skills to do experiments.
- (iv) To learn important analytical and instrumental tools for practical chemistry.
- (v) To be exposed to different processes used industries.

### 3. Botany

- (i) To learn about general characteristics and classification, stelar evolution in pteridophytes, heterospory and origin of seed habit.
- (ii) To learn about structure, life history and Economic important.
- (iii) To acquire knowledge of fixation, dehydration, embedding.
- (iv) To be able to interpret and apply collected information and to use taxonomical information to evaluate and formulate a position of plant in taxonomy.

### 4. Zoology

- (i) To understand the evolution, history of phylum and non-chordata animals.
- (ii) To understand the scope of cell biology study of organelles with their structures.
- (iii) To understand phylum chordate basic concepts, external morphology and sexual dimorphism.
- (iv) To understand culture of Goatary and Lac culture Various, Indian breads and their distribution and economical importans of lac cultivation.
- (v) To understand the various internal systems like Digestive system, Nervous systems, functions of Gemmules, spicules and economical importance of Mollescan shells.

### 5. Mathematics

- (i) To describe various forms of equations of plane, sphere, cone, cylinder.
- (ii) To describe between roots and coefficiante, to solve reciprocal equations properties of prime numbers vision and Euclidean Algorithm.
- (iii) To computer sums, products, quotients, conjugate, modulus and argument of complex number, exponential and integral powers of complex number, parametrization of curves.
- (iv) To understand countable and uncountable sets, holder, Minkowski inequality, concept of completeness, continuity of function, connectdness, subset of R, compactness.
- (v) To define Vector space, Quatient space, Direct sum, linear transformations, rank, nullity simultaneous Linear Equations.

## **06. BCA**

- (i) To understand basic computer architecture, fundamental logic circuits, number systems, conversions, CPU and its Components.
- (ii) MS-Word, MS-PowerPoint, MS-Office, Programming in C, Data structure using C, Database Management System.
- (iii) Software Engineering, Object oriented programming using C++, Operating system and LINUX.
- (iv) Computer base optimization technique, Web technology and PHP, Computer Networks.
- (v) Programming in JAVA, Advance PHP to acquire practical knowledge of applications.

## **07. BBM**

- (i) To learn principle of Management, Business Communication and soft skills, Financial Accounting, Business Mathematics and Economic Environment of Business.
- (ii) To understand Business Statistics, Managerial Economics, Cost Accounting.  
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- (iii) To learn Corporate Accounting, Entrepreneurship Development, Indian Financial System.
- (iv) To understand International Finance, Income Tax, e-commerce.
- (v) To understand organizational behavior, Research Methodology, Financial Management and to learn General Hindi and General English

## **08. Psychology**

- (i) To understand Nervous system, observation perception, characteristics and determinants, Role of motivation, Thinking, Emotion Intelligence.
- (ii) To learn about history of psychopathology, abnormality topographical and dynamic aspects of mind, Dreams, Neuroses, Psychoses, Psychopathic disorder, Mental retardation.
- (iii) To know about methods of learning, -verbal learning sensory motor learning, Method of paired comparison span of attention distraction, education and Educational Psychology, Rating and Ranking, case-study Measurement of Intelligence.
- (iv) To learn about programmed learning Formal and distance education, Guidance and Counselling, Structuralism, Functionalism.
- (v) To understand Behaviorism, contributions of Freud, Jung Adlev to Psychology, Humanistic Psychology.

## **09. Political Science**

- (i) To understand nature and limitation of Political Science, State, Authority, Political ideas, democracy, Principles of working of state.
- (ii) To learn about political systems and Functions, Executive, Legislative System, Judiciary System, Federal Systems, Process of Amendments in Constitution.
- (iii) To understand Indian Political System, Philosophy and sources of idea, Indian Constitution, Directive Principles, Fundamental Rights and Duties, Central Governments- Legislative, Executive and Judiciary State Government- Legislative, Executive and Judiciary.
- (iv) To learn about Public service commission and Election Commission, Indian Politics- Nature and Fundamentals, Castesim, Religion and Communalism, Pressure Groups, Local Self-Government, Panchayati Raj Systems.
- (v) To understand International Politics, India-US relations, India-Russia Relations, Cold war and rise of multi-polar worlds, SAARC, ASEAN, European Union, Non-Alignment-objectives and significance, Globalization.

## **10. Economics**

- (i) To understand fundamentals of Economics, Nature and scope, Consumption, Demand-concept and law of demand, Cost and Revenue, Production and Supply, Market, Distribution- Rent, Wage, Interest, Profit.
- (ii) To learn concept of Money, Monetary policy, Inflation- concept and causes of Inflation, Inflationary gap, National Incomes, Investments- functions and concepts, Banking, International Trade.
- (iii) To understand Micro and Macro Economic Theory, Concept of Market, Malthusian theory of Population, Theories of Rent, Interest and Wages, Money-theories, Function Inflation- Causes, Control measures, Bank, Taxation.
- (iv) To know about Indian Economy-Characteristic, Challenges, Population, Govt. programs, Agriculture, Green Revolution, Land Reform Measures, Sources of Credit, Industries, un- employment, Foreign Trade, Planning.
- (v) To understand the nature of public finance taxation policy, public expenditure, principles of federal finance, Public Enterprises, capital formation and growth, economic growth and planning, economic development of UK, USA, Russia and Japan, basics of statistics, Labour Economics.

## **11. Sociology**

- (i) To understand fundamentals of sociology, nature and scope, social groups, social establishment, social structure, culture, family, social changes, Indians society, caste system, Muslim marriages, village community, position of women in Indian society.
- (ii) To learn about Indian social Institutions, Indian caste system, Panchayati Raj – special reference to Bihar, community Development, Social Psychology.
- (iii) To understand significance of social Research, Scientific Methods, Hypothesis, Social Surveys, Sociometry, Research Methodologies.
- (iv) To understand social thoughts, August Comte, Hererl Spences, L.H. Morgan, Kare Mary, Wilfred Pareto, Talcott Parsons, Raja Ram Mohan Roy, Vivekanand, Mahatma Gandhi.
- (v) To learn about Rural Sociology, rural society, rural family, rural social structure, rural development, Social disintegration, Social Problems, Urbanization, Migration, Demography, Industrial Sociaology.

## **12. Philosophy**

- (i) To understand basic features of Indian Philosophy, Charvaka, Jainism, Buddhism, Nyaya, Vaisesika, Sankhya, Yoga, Mimansha, Advait Vedanta, Vishistdyaita Vedanta, nature of philosophy and its relation with science, Epistemology and Metaphysics.
- (ii) To understand basic of Ethics, Moral, Non-Moral Actions, Punishment, Indian Ethics.

### 13. History

- (i) To learn about History of India from Earliest times to 1206 AD, Ancient History, Indus Valley Civilization, Cultural Patterns, Religious Movements, Age of Maurya Shung, Kushan, Satvahnas, Gupta, Harshvardhan Palar, Pallavas, Advent of Arabs, Truks.
- (ii) To learn about History of Great Britain, -personal rule of Charles, Civil war, rise of Cromwell, constitutional experiments, foreign policy, Georg-I, George-II, George-III Foreign policy of Walpole, Agricultural Revolution, Industrial Revolutio. The rise and progress of Labour party.
- (iii) To understand essence of Indian History (1206 to 1752) Turkish Rule, Delhi sultanate, Vijayanagar empire, Lodis, Establishment of Mughal Rule. – Babar, Humayn, Akbar, Jahangir, Shahjahan, Aurangzeb Sur dynasty, Shershah, Deccans, Marathas under peshwa, Shivaji, cultural development, art, architecture and literature.
- (iv) To learn about History of Modern Europe (1788-1945) French Revolution, Napoleon, Revolutions of 1830, 1848., Napoleon –III, unification of Germany, world war-I Treaty of Versailles, Russian Revolution 1917, Leagal of Nations, Rise of Nazism in Germany.
- (v) To understand History of India (1757-1857), Economic change (1757-1857), Land Revenue Settlement, reforms of Raja Ram Mohan Rai, Revolt of 1857, History of India (1858-1947), National Movements, Second world war, Indian National congress, Quit India movement, cabinet Mission, History of China and Japan, Burma, Malaya, History of West Asia.
- (iii) To know about history of Modern & Western Philosophy, Rene Descartes, Benedict Spinoza Gottfried Wilhelm Leibritz, Jaha Locke, George Burkley, David Hume, Inomanual Kant.
- (iv) To understand philosophy of religion, Social and Political Philosophy.
- (v) To understand Logic and Analysis, Argument and Argument forms, Tautology, concepts, Modern Indian Philosophy.

### 14. English

- (i) To learn about History of English Literature, Dialects of Middles English, word formation, Borrowings, Chaucer Donne, Milton Pope, Coleridge Arnolds.
- (ii) To study Dr. Faustus, Marlowe, Macbeth, Shakespeare, Valpone, Ben Jonson, The way of world, Congreve. The Rivals, Sheridan, Gulliver’s Travels- Jonathan Swift, Pride and Prejudice, Jane Austen, Great Expectation, Charles Dickens, Far from Madding Crowd, Thomas Hardy.
- (iii) To understand literary criticism, Aristotle-poetics, Loginus-on the sublime, Horace-Art of Poetica Johnson- Life of Cowley, Dryden –Essay of Dramatic Poetry, Mathew Arnold – The study of poetry T.S. Eliot – Tradition and Individual talent.
- (iv) To study books of authors, W.B. Reats- Sailing in By Zantium, Among School Children, The Second Coming, T.S Eliot – Hollowman, Love song of Alfred Prufock, Gerontion, G.B. Shaw – Pygmation, D.M. Lawrence – The Fox, Ernest Hemingwar – The old Man and the sea, Virginia woolf - To the Light House
- (v) To study Indian poetry in English, of H.L.V. Derozio, R.N. Tagore, S.Ashutosh, T.Dutt, S.Naidu, N.Ezekiel, K.Das, A.K. ramanujan, K.N. Daruwala, S.K. Kuar, J.Mahapatra, Literary Heritage, Indian Fictions .

### 15. Hindi

- (i) To read and understand Bhakti and Rectikavya of Kabir, Jaisi, Tulsidas, Meerabai, Bihari.
- (ii) To study and learn about Literary stories, Drama and Essays of Bhagwate Charan Verma, Phanishwar Nath Renu, Jaishankar Prasad, Dr. Sunil Kumar, Development of Essays.
- (iii) To learn about Modern Poetry of Jaishankar Prasad, Suryakant Tripathi Nirala, Sumitra Nandan Pant, Mahadevi, Ramdhari Singh Dinkar, Harivansh Rai Bachchan, Ageya, Dharmvir Bharati, Bhawani Prasad Mishra.
- (iv) To learn about history of Hindi Literature, Indian Poetry and Principles of Indian and Western Literature.

(v) To understand, Art of Writing, Workable Hindi, Official Hindi, Business Hindi, Translation, journalism, Technical words, Sagun Bhakti Kavya- Bhramar Geet of Surdas, Kavitavali of Tulsidas, Raskhan, Meera Bai, Public Literature.