



दूरभाष : 06279-232315

अयोध्या प्रसाद सिंह स्मारक महाविद्यालय, बरौनी
A.P. Singh Memorial College, Barauni

(A Constituent Unit of L.N. Mithila University, Darbhanga)
Pin.- 851112

Programme Outcome, Programme Specific Outcome and Course Outcomes

B.Sc -Chemistry

(Hons.)

Programme Outcome

B.Sc. Chemistry curriculum is so designed to provide the students a comprehensive understanding about the different branches of Chemistry such as Organic Chemistry, Inorganic Chemistry, Physical Chemistry and Analytical Chemistry. The practical exercises done in the laboratories impart the students the knowledge about various chemical reagents and reactions. Thereby, improve their skills of handling the corrosive, poisonous, explosive and carcinogenic chemicals making themselves employable in any kind of chemical industries. They are also trained about the adverse effects of the hazardous chemicals and the first aid treatment.

Programme Specific Outcome

The students will learn the diversified structure of the matter which remains in the form of molecules, atoms and sub atomic particles. They will learn to estimate both inorganic and organic compounds and their analysis both qualitatively and quantitatively. Students will learn to produce and synthesize some chemical compounds by the knowledge of different reactions.

Course Outcome

Students will have a firm foundation in the fundamentals and application of current chemical and scientific theories including those in Analytical, Inorganic, Organic and Physical chemistry. In General and Analytical Chemistry, the periodicity in properties of elements, laboratory titrations, chromatography and other separation techniques are studied. Students can

also learn some industrial aspects of Inorganic and Organic Chemistry, various bio and synthetic fuels, industrially important organic chemicals, basic metallurgical operations and an elementary idea regarding quantum-chemistry. The course also contains the understanding of various atom models, different types of bonds and to have exposure to various emerging new areas of organic chemistry. Students will also understand the chemistry of Natural products and Bio-molecules.

B.Sc. - Mathematics (Hons.)

Programme Outcome

Completion of the bachelor programme in Mathematics prepares the students to understand and view mathematical structures. They will learn numerical aptitude applying both qualitative and quantitative knowledge for their future career. The elective paper fuzzy set theory imparts thorough knowledge in fuzzy mathematics which is very useful for the students to do their research programs in future. The UG curriculum offers need based computer courses which enable the students to solve computer oriented numerical problems.

Programme Specific Outcome

After successful completion of the programme, students can opt for an advanced course such as Pure Mathematics, Applied Mathematics, Computer applications etc., under Gauhati University as well as other Indian Universities. Job market for a graduate in Mathematics is also very bright. The mathematics UG students after the completion of the course will gain a thorough knowledge in preparing competitive examinations conducted by different banking sectors, APSC and UPSC. Abstract courses and mathematical structures includes in the UG program enable the students to prepare themselves for higher education leading to M.Sc./MCA degree courses.

Course Outcome The Bachelor programme in Mathematics are well planned to cover a wide spectrum of topics in Mathematics as Classical, Abstract and Linear algebra and their applications; Analytical geometry of dimension 2 and 3 and vector analysis ; Differential and integral calculus; Real analysis and Complex analysis ; Basic courses of topology and Functional analysis ; Ordinary and partial differential equations and the theory of integral transforms ; Statics and hydrostatics ; Operations research and game theory ; Computer

programming, Numerical analysis and computer aided numerical practical and Probability and statistics

B.Sc. - Physics (Hons.)

Programme Outcome

After completion of the programme in Physics, Students are intended to develop a conceptual understanding of physics principles. They will be able to demonstrate concepts in Newtonian Mechanics, Electromagnetism, Thermodynamics and Quantum mechanics. They will be able to translate a physical description to a mathematical equation and conversely explain the physical meaning of the mathematics, represent key aspects of physics through graphs and diagrams and use geometric arguments in problem-solving.

Programme Specific Outcome

On the completion of bachelor programme in Physics, students learn the basic mathematical tools, needed to understand different branches of Physics. They are trained to apply these techniques through numerical exercises. They are familiarized with hands-on training in the furnished and equipped laboratory for practical verification of the physical theories that they learn during class lectures. It makes the students eligible for the further post-graduate studies, in physics, electronics, instrumentation, computer applications etc. They will discover of physics concepts in other disciplines such as mathematics, computer science, chemistry etc. Three years undergraduate programme in Physics also prepares the students for career as teachers or researchers in different branches in pure and applied physics.

Course Outcome

The course in physics includes different properties of natural objects, like mechanical, thermal, electrical, magnetic properties etc. In accordance with the recent development in information technology, the students get familiarized with the computation facility with motivations for physics applications. They learn the basic mathematical tools like vector analysis, differential equations, matrix and determinant, Complex analysis etc. The mechanical and general properties of matters are also discussed. Several particles in nature move with a velocity comparable to velocity of light. Students learn the Einstein's modification on the concept of

space-time, through special theory of relativity. The Physics of immobile charges and charges in motion are also studied in this course. The students learn different types of waves and oscillations, viz., acoustical as well as electro-magnetic. Kinetic Theory, Thermodynamics and Statistical mechanics are three approaches of thermal physics. Students learn their details and difference in approach. They are familiarized on the different statistics.

B.Sc. - Zoology (Hons.)

Programme Outcome

After completion of the bachelor programme in Zoology students will gain knowledge and develop skill over animal sciences, understands the interactions among various living organisms, internal structure and functions of various body parts. Understands the complex evolutionary processes and behavioural pattern of various animals. Students are able to correlate the physiological and biochemical processes of animals.

Programme Specific Outcome

As a result of the completion the students will understand ecological factors, environmental conservation processes and its importance, pollution control and biodiversity and protection of threatened species. They will gain knowledge about applied fields like sericulture, fisheries, apiculture, poultry and dairy farms along with tissue preparation, molecular and statistical techniques. They will understand about various concepts of genetics and its importance in human health. They will be able to apply such knowledge in the practical field which will give them different job opportunity. Contributes the knowledge for Nation building.

Course Outcome

After completion of the course, student will understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology. They will be able to analyse the relationships among animals with their ecosystems. They can perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology as a result of the course completion. Develops concepts regarding various theories and experiments about organic evolution. Imparts knowledge to the student regarding various laws of ecology, types of ecosystem, population and community characteristics and dynamics. Students gain fundamental knowledge of environmental pollutions due to toxic

materials and their effects over ecosystem and learns about sustainable development, animal behaviour and socio-biology, applied zoology, conservation biology & wildlife ,bio-informatics, understands concepts of fisheries, sericulture, apiculture, poultry, dairy along with tissue and cell culture techniques.

B.Sc. - Botany (Hons.)

Programme Outcome

Bachelor programme in Botany deals with the deeper understanding of the scientific issues for day to day application. It prepares the students to understand the impact of development on environment safety and its significance for sustainable ways of development. How the plants are essential to life sustenance and its anatomy, physiology, morphology are the main topics of this programme.

Programme Specific Outcome

Mainly reveals the importance of plants, their diversity and conservation. Achieve knowledge of pure and applied botany. Understand contribution of botany in increase and improve our supply of medicines, food, fibers and other plant products. Understand health and environmental protection and to solve the pollution problems. Understand knowledge of botany is an essential pre-requisite for the pursuit of many applied sciences like Agriculture, Horticulture, Sericulture, Forestry, Pharmacology and Medicine.

Course Outcome

The students learn about general characteristics, morphology, reproduction and economic uses of Algae and Lichen, Fungi and plant diseases ,Bryophytes, Pteridophytes and Gymnosperms, Fossil plants; taxonomy, morphology, embryology, and anatomy of the Angiosperms. The students become proficient in knowing Phyto-geography and Economic Botany. The students absorb conceptual knowledge in understanding about Biochemistry and plant Metabolism, Ecology and Pharmacology, Microbiology, Plant Physiology, Cell Biology, Genetics, Molecular Biology, Plant Biotechnology and Tissue Culture. The students acquire skill about Biofertilizers, Ethnobotany, Mushroom Culture, Floriculture techniques and its applications and Nursery and Gardening.

B.A. - Economics (Hons.)

Programme Outcome

Students will understand the economic variables including inflation, unemployment, poverty, gross domestic product, etc, to understand the behaviour of financial and money markets and to develop knowledge about prospects of growth. The course will provide knowledge on analysing economic policies including fiscal and monetary policies in India.

Programme Specific Outcome

This programme prepares students for career as professionals or researchers in the field of Economics. Students are equipping them with knowledge to take up higher education, for Competitive Examinations in the Banking and Administrative sectors, to take up entrepreneurship, compete in Indian Economic Service, go for Master of Business Administration etc.

Course Outcome The course deals with the students to understand the theories of exchange among rational economic agent in variant market structure. It helps students to get an idea of the behaviour of Indian and World economy. Three year Under Graduate course in Economics (Major) covers Mathematical Economics, International Economics, Indian Economics, Economic Application, History of Economic Thought, Public Finance and Monetary System.

B.A. - History (Hons.)

Programme Outcome

The programme basically deals with past events written in a chronological account and relating to the present. Sound Knowledge of different Historical Periods in each year is studied with a definite emphasis on modern research and trends.

Programme Specific Outcome

An Interdisciplinary Perspective of the current syllabus provides a student new insights into areas of literature, political ideas, economic planning and cultural form. Inclusion of courses dealing with the development of Archaeology and museums can enhance the vision of the students and develop skills. This course prepares students for higher studies in History, Archaeology, Culture Studies, and Mass Communication etc and for any competitive examination including Civil Services.

Course Outcome

The Under Graduate course in History comprises of Ancient, Medieval and Modern Indian history, The course also includes History of Great Britain, European History (different periods) and International Relations.

B.A. - Political Science (Hons.)

Programme Outcome

Completion of the bachelor programme in Political Science leads a significant thrust on the knowledge of Indian Constitution, Indian Politics and Government, Public Administration and International Relations. It also requires students to study the constitutions of China, Switzerland, United Kingdom and America. The course includes Sociology, Women and Politics, Western and Indian Political Thinkers and Human Rights.

Programme Specific Outcome

The programme familiarizes the students with different approaches to the study of politics and orients them on contemporary political problems and behaviour thus enabling them to formulate a general idea on political phenomena. It also helps them to comprehend the basic structure and processes of government systems. The programme prepares students for pursuing higher education in Political Science. It orients students towards national and state level competitive examinations like APSC, UPSC, etc. Many students also pursue courses in Law.

Course Outcome

The Course outlines of the discipline of Political Science are divergent and contemporary. The course completion results the study of the different concept of political theory and comparative politics. It also study the concept of different political systems , Indian Government and politics, knowledge about Indian constitution, theories of International relations, concept of interrelations among the states and its impact, legislative practices and procedures , human rights, social movements in contemporary India , basic theories of public administration and local governance.

B.A. - English (Hons.)

Programme Outcome

The Under Graduate programme in English deals mostly with English literature and its history. It makes the students familiar with different literary genres – fiction, non-fiction, poetry, plays, biography, autobiography, journal, film, plays, etc. Develops intellectual, personal and professional abilities through effective communicative skills.

Programme Specific Outcome

Knowledge in grammar and usage and linguistic structure of the English language will develop the communicative skills of the students. The course familiarizes students with the main events, conflicts and inventions of Great Britain, to comprehend literary texts written by great writers of English from the ancient to the modern times.

Course Outcome

The course will enable students to acquire sound comprehension of social, cultural, biographical, historical background of British and other European literature, American literature, Indian Writing in English. As the course is basically multi-disciplinary the students have a lot of career-options – teaching, News Media, Communication Media, Tourism Industry, as Air Hostess etc. They can opt for further studies in English, Linguistics, Culture Studies, Folklore, MBA, Mass Communication, Tourism, Law etc.

B.A. - Sanskrit (Hons.)

Programme Outcome

The Under Graduate programme in Sanskrit are designed not only professional skill but also develop a deep understanding of rich heritage and dynamic prevalent scenario of India through various Sanskrit texts.

Programme Specific Outcome

PSO1. Develop a strong concept of ancient Indian history, philosophy and literature.

PSO2. Enhance communication skills-Listening, Speaking, Reading, Writing.

PSO3.Students will be able to write Devnagari scripts which provide them paleographical knowledge to read out the script of modern languages like Hindi.

PSO4. Increase in depth knowledge of the Core Areas of the subject.

PSO5.Students will demonstrate the skill needed to participate in conversation that builds knowledge with collaboration.

PSO6.Reasonable understanding of multi-disciplinary relevance of literature of Sanskrit like Veda, Philisophy, Grammar, Kavya, Smitisastra etc.

PSO7. To make them eligible for higher education.

PSO8. Develop research aptitude and independent thinking PSO9. After becoming graduate students can apply in the field of UPSE, BPCS etc. And also after post-graduation they can apply against teaching posts in schools, colleges and other educational institutions.

Course Outcome

Upon completion of this course students will have following opportunities and skills.

CO1. Students will be able to know not only ancient literature and their classification but also modern Sanskrit literature.

CO2. they will be manage their cognition, emotive apparatus, confusion and conflict of mind.

CO3.They should general introduction of Indian Petrology and definitions and examples of various artharlankara.

CO4.The students would learn about the ancient Indian Educational system and Polity, their nature, concepts through the text of Dharmasastra and Arthasastra.

CO5.The students would know about the historical importance of Indian Epigraphy, Paleography, Chronology and Inscription.

CO6.They will be able to know the importance, propagation across the world of this language.

CO7.Students would know about the Vedic mantras, their application, Vedic grammar, socio-cultural life.

CO8. Grammar is very important part of this language for the making of sentences, to know appropriate meaning of texts, oral communication and perfection.

CO9.Linguistics should also help them to know the source of this language and the relation between other languages.

CO10.The students will take the knowledge about of Indian philosophy, Philosophers and their thoughts. They could relate the philosophical theory in practical life.

B.A. - Philosophy (Hons.)

Programme Outcome

The bachelor programme in Philosophy deals with the study of Greek Philosophy, Indian and Western Philosophy and Ethics, Philosophy of Religion- theory, origin and development, Epistemology and Metaphysics, Social and Political Philosophy and Logic.

Programme Specific Outcome

The programme develops introspective thinking and analytical abilities of the students. At the end of the course students opt for higher studies in Philosophy. Students are expected to be acquainted with Classical, Medieval and Modern Philosophers and their writings. The programme consists of Classical, Medieval and Modern Philosophies both Indian and Western.

Course Outcome

Since topics on Ethics, Psychology, Logic, 20th century philosophy and many more present day relevant philosophical thoughts are all included in the syllabus, the students are expected to acquire deep understanding of present, relevant philosophical thoughts which again would help them in research work. Along with it the syllabus also had papers on Logic and Reasoning.

B.A. - Psychology (Hons.)

It is a three-year undergraduate programme exploring social, experimental, clinical and organisational branches of psychology. The core elements of the subject matter involve the exploration of mental health, childhood and development as well as scientific fundamentals. This programme enables students to develop skills in the areas of communication, information gathering, problem-solving and quantitative and qualitative methods of inquiry analysis and interpretation. Psychology as a subject is grounded in natural and life sciences and offers ample scope to explore social sciences and humanities such as criminology and philosophy. The precisely designed programme curriculum offers students a glimpse of specialities available to study such as abnormal, psychology or psychiatry a degree that also includes a medical component. This popular college major subject helps the students in developing insights into communication interpersonal and human knowledge.

Course Outcome (CO)

- CO1: To comprehend concepts and principles of different disciplines of humanities, social sciences and languages and their inter-relation.
- CO2: To demonstrate a detailed acquaintance of the selected core discipline of study.
- CO3: To apply an independent approach to address various issues related to the core area of specialization by using appropriate theories and methodologies.
- CO4: To work as independent critically discerning and creative participant in the workplace, community and personal life.

Program Outcomes:

- PO1: Theory and Content of Psychology: Become familiar with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- PO2: Methods in Psychology: Comprehend and apply basic research methods in psychology, including research design, data analysis, and interpretation.
- PO3: Applications of Psychology: Recognize and apply psychological principles to personal, social, and organizational issues.

- PO4: Critical Thinking Skills: Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.
- PO5: Intellectual Skills: Enable students to develop skills in the areas of communication, information gathering, problem solving, and quantitative and qualitative methods of inquiry, analysis, and interpretation.
- PO6: Values in Psychology: Weigh evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline.
- PO7: Cultural diversity skills: Sensitivity towards diverse contexts, ethnic groups, minorities, marginalized groups and gender issues.
- PO8: Entrepreneurship Skills: Development of skills and attributes of empathy, team work, strategic thinking and planning, coordination, cooperation, conflict resolution, and congruence.

Program Specific Outcomes:

- PSO1: To engage students in the comprehensive study of the discipline so that they can understand and interpret human thought, feeling and behavior under different circumstances.
- PSO2: To equip them with analytical skills to apply knowledge of social, developmental, cognitive, workplace and organizational psychology in different situations.
- PSO3: To promote innovative and integrative thinking and problem solving and enable them to interpret, design, and conduct basic psychological research

B.A. - Hindi (Hons.)

Programme Outcome

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.

Program Specific Outcomes

PSO1. Understand the gradual progress of language and its literature with orientations and changes occurred during the flow of time and history.

PSO2. Analyse the relationship among language, literature and society.

PSO3. Understand the behavioural approach of human beings.

PSO4. Perform more scientifically for the betterment of mankind by learning functional Hindi and basics of journalism.

Course Outcomes

CO1. Describe the history of Hindi literature with evolution of language.

CO2. Write down the characteristics of ancient and medieval literature in context of different socio-economic environments.

CO3. Identify the modern literary reactions towards the changes of society.

CO4. Write down the characteristics of official language of India and its implementation in society.

B.A. - Urdu (Hons.)

Programme Outcome

Upon completion of the program, students will be able to know the basic and essential knowledge of Urdu language, literature with its terms. Theories and devices and to impart the knowledge of the Urdu prose, poetry, fiction and criticism.

Program Specific Outcomes

1. To be able to get knowledge about history of Urdu literature, its meaning and importance of major Urdu dialects.
2. To understand the different views and expansion about Urdu language and know about with its historical perspective.
3. To develop an ability to read texts in relation to their historical and cultural contexts, in order to gain a richer understanding of texts and context, and become more aware of them historically and culturally.
4. To develop awareness about life through the study of Urdu literature and to know the sensitivity and respect towards the Urdu literature.
5. To design solutions for the problems to meet the specified needs with appropriate consideration for the cultural, social and environmental well being.
6. To learn to communicate effectively with society and are able to comprehend and write effective reports and design documentation, also make effective presentation and give and receive clear instruction, understand the importance of critical thinking, social interaction, effective citizenship, ethics, environment and sustainability and to acquire the ability to engage in independent and life-long Learning.
7. To know about the syncretic genius and importance of Urdu culture, language and literature and to create the love and respect for values especially human values. □ To gain the basic and essential knowledge in their language and to develop awareness about life through the study of Urdu literature.
8. To be able to ignite the passion for learning teaching and employability based on human utility. To be able to ignite the sense of elegance, dignity, magnanimity&

delicacy and to spread awareness about the syncretic and synergetic genius and importance of Urdu culture & literature,

9. To promote and protect the creativity and originality and to promote communicative skills to become successful in the market and society.

Course Outcomes

1. words and meanings in literary texts to identify the difference between literary language and ordinary
2. To acquaint the knowledge of Urdu language, literature on the background of its social and cultural history and understand the different views about Urdu language.
3. To acquaint the learners with different movements which influence the Urdu literature such as Sir sayed Tahrik, Taraqqi pasand tahrik (Progressive movement), jaded tahrik ,Modernism and post modernism in Urdu poetry and learn famous Urdu ghazals poet, their poetry and its special features:
4. To teach and create knowledge of the Urdu poetry and its various kinds Specially Urdu ghazal and Nazm as well as Marsiya, Qasida and Masnawi
5. To acquaint learners with the essence of Urdu prose, Dastan, Novel, Short Stories and Drama, and to create interest in prose such as letterwriting, eassy ,biography and sketch story and Learn about the major contribution of famous Urdu writers
6. To impart the knowledge about the origin and development of literary criticism and to analyze prose and poetry
7. To acquaint the creativity in constructing different literary forms and provide the arts and style of writing easy in Urdu and learn about Urdu mazamin

B.A. – Ancient Indian History & Culture (Hons.)

Programme Outcome


The programme basically deals with Periodic History of Ancient India such that Political History, Socio economic history, Polity and Administration, Art and Architecture, Proto and Proto Historic Archaeology, Museology, tourism and Excursion .

Programme Specific Outcome

An Interdisciplinary Perspective of the current syllabus provides a student new insights into Ancient Indian History of literature, political ideas, economic planning and cultural form. Inclusion of courses dealing with the development of Archaeology and museums can enhance the vision of the students and develop skills. This course prepares students for higher studies in Ancient Indian History & Culture, Archaeology, Culture Studies, and Mass Communication etc and for any competitive examination including Civil Services.

Course Outcome

The Under Graduate course in Ancient Indian History & Culture comprises of Political History of Ancient India starting From 6th century BC, to rise of Magadh upto Nand, Persian and Macedonian Invasion, Maurya Dynasty, Post-Maurya, Gupta Dynasty, Harsh, Regional Dynasty and Muslim invasion. This course deals with the Socio-Economic History, Polity and Administration, Art and Architecture in Ancient India. This course cover up the Pro and Proto History, Palaeolithic, Mesolithic and Neolithic, Pre Harappa, Harappa and Post Harappan culture, Iron Age, Poetry and Megalithic culture. This course help the students to learn Archaeology, Epigraphy, Numismatic, Museum, Tourism and Excursion.


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