Office of the Principal II (ii)

GOVT. DEGREE COLLEGE BALDWARA

Tehsil Baldwara, District Mandi (H.P.) 175033

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Ref. No. Session 2024-25 Date .....

The suggestive outcome after completion of each program viz. (B.A., B.Sc., B.Com.) are mentioned in the attached document.

Principal
GDC Baldwara
Distt. Mandi, H.P.

Principal
G.D.C. Baldwara.
Distt. Mandi (H.P.)

Programmes Outcomes, Programmes specific out comes and course outcomes of the different programmes running at Govt. Degree College Baldwara, District Mandi (Himachal Pradesh)- 175033

1. B.Sc. (Physics, chemistry, Maths, Zoology and Botany)

B.Sc. Course in Physics

The student graduating with the Degree B.Sc. will

- Acquire a fundamental/systematic or coherent understanding of the academic field of Physics, its different learning areas and applications in basic Physics like Astrophysics, Material science, Nuclear and Particle Physics, Condensed matter Physics, Atomic and Molecular Physics, Mathematical Physics, Analytical dynamics, Space science, and its Disciplinary areas/subjects like Chemistry, Mathematics, Lifesciences, Environmental sciences, Atmospheric Physics, Computer science & Information Technology.
- Demonstrate the ability to use skills in Physics and its related areas of technology for formulating and tackling Physics-related problems and identifying and applying appropriate physical principles and methodologies to solve a wide range of problems associated with Physics.
- Plan and execute Physics-related experiments or investigations, analyze and interpret data/information collected using appropriate methods, including the use of appropriate software such as programming languages and purpose-written packages, and report accurately the findings of the experiment/investigations while relating the conclusions/findings to relevant theories of Physics.

COURSE SPECIFIC OUTCOMES

C-I: MECHANICS

(i) Course learning outcome:

After going through the course, the student should be able to

- Understand laws of motion and their application to various dynamical situations, notion of inertial frames and concept of Galilean invariance, conservation of energy, momentum, angular momentum, phenomena of collisions and idea about center of mass and laboratory frames and their correlation, the principles of elasticity through the study of Young Modulus and modulus of rigidity , apply Kepler's law to describe the motion of planets and satellite in circular orbit, through the study of law of Gravitation.

C-II: ELECTRCITY AND MAGNETISM

(i) **Course learning outcome:**

After going through the course, the student should be able to

- Demonstrate Gauss law, Coulomb's law for the electric field, and apply it to systems of point charges as well as line, surface, and volume distributions of charges.
- Articulate knowledge of electric current, resistance and capacitance in terms of electric field and electric potential, explain Faraday-Lenz and Maxwell laws to articulate the relationship between electric and magnetic fields and Understand the dielectric properties, magnetic properties of materials.

C-III: WAVES AND OPTICS

(i) **Course learning outcome:**

This course will enable the student to

- Recognize and use a mathematical oscillator equation and wave equation
- Apply basic knowledge of principles and theories about the behaviour of light.
- Use the principles of wave motion and superposition to explain the Physics of polarisation, interference and diffraction.

C-IV: STATISTICAL AND THERMAL PHYSICS

(i) **Course learning outcome:**

- Comprehend the basic concepts of thermodynamics, the first and the second law of thermodynamics, the concept of entropy and the associated theorems, the thermodynamic potentials and their physical i nterpretations.
- Learn about Maxwell's thermodynamic relation, basic aspects of kinetic theory of gases, Maxwell-Boltzman distribution law, equitation of energies, mean free path of molecular collisions, viscosity, thermal conductivity, diffusion and Brownian motion, real gas equations, Van der Waal equation of state, the Joule- Thompson effect.
- Understand the concepts of microstate, macrostate, ensemble, phase space, thermodynamic probability and partition function, Maxwell-Boltzmann distribution, Bose-Einstein distribution and Fermi-Dirac distribution laws of particles and their derivation, the concept of Fermi energy and Fermi level.

C-V: ELEMENTS OF MODERN PHYSICS

(i) **Course learning outcome:**

- Know main aspects of the inadequacies of classical mechanics and understand historical development of quantum mechanics and ability to discuss and interpret experiments that reveal the dual nature of matter.
- Understand the central concepts of quantum mechanics: wave functions, momentum and energy operator, the Schrodinger equation, time dependent and time independent cases, probability density and the normalization techniques, skill development on problem solving e.g. one dimensional rigid box, tunneling through potential barrier, step potential, rectangular barrier.
- Understanding the properties of nuclei like density, size, binding energy, nuclear forces and structure of atomic nucleus, liquid drop model and nuclear shell model and mass formula, fission and fusion well as nuclear processes to produce nuclear energy.

C-VI: QUANTUM MECHANICS

(i) **Course learning outcome:**

This course will enable the student to get familiar with quantum mechanics formulation.

- After an exposition of inadequacies of classical mechanics in explaining microscopic phenomena, quantum theory formulation is introduced through Schrodinger equation.
- The interpretation of wave function of quantum particle and probabilistic nature of its location and subtler points of quantum phenomena are exposed to the student.
- Through understanding the behavior of quantum particle encountering a i) barrier, ii) potential, the student gets exposed to solving non-relativistic hydrogen atom, for its spectrum and eigen functions.
- Study of influence of electric and magnetic fields on atoms will help in understanding Stark effect and Zeeman Effect respectively.

C-VII: SOLID STATE PHYSICS

(i) **Course learning outcome:**

At the end of the course the student will learn and assimilate the following.

- A brief idea about crystalline and amorphous substances, about lattice, unit cell, miller indices, reciprocal lattice, concept of Brillouin zones and diffraction of X-rays by crystalline materials.
- Knowledge of lattice vibrations, phonons and in depth of knowledge of Einstein and Debye theory of specific heat of solids, different types of magnetism from diamagnetism to ferromagnetism and hysteresis loops and energy loss.
- Understanding above the band theory of solids and must be able to

differentiate insulators, conductors and semiconductors.

- Understand the basic idea about superconductors and their classifications.

Skill-based Elective Courses(SEC)

SEC-I: PHYSICS WORKSHOP SKILLS

(i) Course learning outcome:

- After the successful completion of the course the student is expected to acquire skills/ hands on experience / working knowledge on various machine tools, lathes, shapers, drilling machines, cutting tools, welding sets and also in different gear systems, pulleys etc. He /she will also acquire skills in the usage of multimeters, soldering iron, oscilloscopes, power supplies and relays.

SEC-II: COMPUTATIONAL PHYSICS

(i) Course learning outcome:

- Learn the importance of computers in solving problems in Physics.
- Learn how to plan for writing the algorithm for solving a problem by drawing the flowchart of simple problems like roots of quadratic equations etc.
- Have a working knowledge about the Linux system, for example, the necessary commands.
- Learn, write and run FORTRAN programs in the Linux system.

SEC-III: ELECTRICAL CIRCUITS AND NETWORK SKILLS

(i) Course learning outcome:

- After the completion of the course the student will acquire necessary skills/ hands on experience /working knowledge on multimeters, voltmeters, ammeters, electric circuit elements, dc power sources, ac/dc generators, inductors, capacitors, transformers, single phase and three phase motors, interfacing dc/ac motors to control and measure, relays and basics of electrical wiring.

SEC-IV: BASIC INSTRUMENTATION SKILLS

(i) Course learning outcome:

After the successful completion of the course the student is expected to have the necessary working knowledge on accuracy, precision, resolution, range and errors/uncertainty in measurements. He/she will acquire hands on skillsin the usage of oscilloscopes, multimeters, multivibrators, rectifiers, amplifiers, oscillators and high voltage probes. He also would have gained knowledge on the working and operations of LCR Bridge, generators, digital meters and counters.

SEC-V: RENEWABLE ENERGY AND ENERGY HARVESTING

(i) **Course learning outcome:**

- The students are expected to learn not only the theories of the renewable sources of energy, but also to have hands-on experiences on them wherever possible. Some of the renewable sources of energy which should be studied here are: (i) off-shore wind energy, (ii) tidal energy, (iii) solar energy, (iv) biogas energy and (v) hydroelectricity.

SEC-VII: RADIATION SAFETY

(i) **Course learning outcome:**

- Be aware and understand the hazards of radiation and the safety measures to guard against these hazards.
- Have a comprehensive knowledge about the nature of interaction of matter with radiations like gamma, beta, alpha rays, neutrons etc. and radiation shielding by appropriate materials.
- Know about the units of radiations and their safety limits, the devises to detect and measure radiation, such as the Geiger-Mueller counter and scintillation counter.
- The students are expected to learn radiation safety management, biological effects of ionizing radiation, operational limits and basics of radiation hazards evaluation and control, radiation protection standards.

SEC-VIII: APPLIED OPTICS

(i) **Course learning outcome:**

This course will enable the student to get

- Familiar with optical phenomena and technology.
- Qualitative understanding of basic lasing mechanism, types of Lasers, characteristics of Laser Light, types of Lasers, and its applications in developing LED, Holography.
- The idea of propagation of electromagnetic wave in a nonlinear media – Fibre optics as an example will enable the student to practice thinking in a logical process, which is essential in science.

SEC-IX: WEATHER FORECASTING

(i) **Course learning outcome:**

- Acquire basic knowledge of the elements of the atmosphere, its composition at various heights, variation of pressure and temperature with height.
- Knowledge of simple techniques to measure wind speed and its directions, humidity and rainfall. Absorption, emission and scattering of radiations in atmosphere. Radiation laws.
- Knowledge of global wind systems, jet streams, local thunderstorms,

tropical cyclones, tornadoes and hurricanes.

- Knowledge of climate and its classification. Understanding various causes of climate change like global warming, air pollution, aerosols, ozone depletion, acid rain.

B.Sc. Mathematics:

After the successful completion of this course, the student will:

- Be able to explain the core ideas and the techniques of mathematics upto college level.
- Be able to recognize the power of abstraction and to carry out investigative mathematicalwork with independent judgment.
- Be able to carry out objective analysis and prediction of quantitative information.
- Be able to communicate effectively about mathematics to both lay and expert audiences utilizing appropriate information and communication technology.
- Be able to work independently, and to collaborate effectively in team work and team building.
- Be able to conduct self-evaluation, and continuously enrich themselves through lifelong learning.
- Be able to communicate to lay audiences and arouse their interest in the beauty and precision of mathematical arguments and science.
- Be able to recognize the importance of compliance with the ethics of science and being a responsible citizen towards their community and a sustainable environment.
- Be able to cultivate a mathematical attitude and nurture the interests. Be able to Recognize and appreciate the connections between theory and applications. Be able to Exhibit positive attitudes and values toward the discipline, so that they can contribute to an increasingly complex and dynamic society.

Course outcomes

MATRICES

On completion of this course, students will be able to:

- solve a System of Linear equations using the inverse of a matrix
- find characteristic roots and characteristic vectors.
- find the inverse of a matrix by Cayley-Hamilton theorem

CALCULUS

After completing this course the learner should be able to

- Find the higher order derivative of the product of two functions.
- Expand a function using Taylor's and Maclaurin's series.
- Conceive the concept of asymptotes and obtain their equations.
- Learn about partial derivatives and its applications.
- Find the area under a given curve, length of an arc of a curve when the equations are givenin parametric and polar form.
- Find the area and volume by applying the techniques of double and triple integrals

VECTOR CALCULUS, THEORY OF EQUATIONS AND NUMERICAL METHODS

After completing this course the learner should be able to
- Represent vectors analytically and geometrically, and compute dot and cross products forpresentations of lines and planes,
- Analyze vector functions to find derivatives, tangent lines, integrals, arc length, and curvature,
- Compute limits and derivatives of functions of 2 and 3 variables,
- Evaluate double and triple integrals for area and volume,
- Differentiate vector fields
- Determine gradient vector fields and find potential functions
- Analyze different forms of equations and finding their roots
- Understand relation between roots and coefficients
- Derive numerical methods for approximating the solution of problems of continuous mathematics,
- Analyze the error incumbent in any such numerical approximation,
- Compare the viability of different approaches to the numerical solution of problems arising in roots of solution of non-linear equations, interpolation and approximation, numerical differentiation and integration, solution of linear systems.

DIFFERENTIAL EQUATIONS

After studying this course the students should be able to
- Obtain an integrating factor which may reduce a given differential equation into an exactone and eventually provide its solution.
- Identify and obtain the solution of Clairaut's equation.
- Fine the complementary function and particular integrals of linear differential equation.
- Method of solution of the differential equation
- Describe the origin of partial differential equation and distinguish the integrals of first orderlinear partial differential equation into complete, general and singular integrals.
- Use Lagrange's method for solving the first order linear partial differential equation
- Solve differential equations of first order using graphical, numerical, and analytical methods,
- Solve and apply linear differential equations of second order (and higher),
- Demonstrate their ability to write coherent mathematical proofs and scientific argumentsneeded to communicate the results obtained from.

ABSTRACT ALGEBRA

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

REAL ANALYSIS

After the completion of this course the student will be able to:

- Identify Continuity and Discontinuity of various functions in different contexts
- Understand Integrability and theorems on integrability
- Recognize the difference between pointwise and uniform convergence of a sequence offunctions
- Illustrate the effect of uniform convergence on the limit function with respect to continuity,differentiability, and integrability.

COMPLEX ANALYSIS

On completion of this course, the students will be able to

- Compute sums, products, quotients, conjugate, modulus, and argument of complex numbers
- Define and analyze limits and continuity for complex functions as well as consequences ofcontinuity
- Determine whether a given function is differentiable, and if so find its derivative
- Write complex numbers in polar form
- Find all integral roots and all logarithms of nonzero complex numbers
- Evaluate complex contour integrals directly and by the fundamental theorem, apply the Cauchy integral theorem in its various versions, and the Cauchy integral formula
- Represent functions as Taylor, power and Laurent series, classify singularities and poles, find residues and evaluate complex integrals using the residue theorem • Use the Cauchy Residue Theorem to evaluate integrals and sum series
- Identify the isolated singularities of a function and determine whether they are removable, poles, or essential
- Compute Laurent series at an isolated singularity, and determine the residue
- Understand uses of improper integrals in various situations
- Use the residue theorem to compute complex line integrals and real integrals

LINEAR ALGEBRA

Upon completion of this course, students should be able to:

- Understand the idea about vector space and metric space
- Analyze finite and infinite dimensional vector spaces and subspaces over a field and theirproperties, including the basis structure of vector spaces
- Compute with the characteristic polynomial, eigenvectors, eigenvalues and Eigen spaces.

B.Sc. Zoology

After completion of the **B.Sc in zoology** student will gain basic understanding of the morphological and anatomical peculiarities of organisms in the animal kingdom and their phylogenetic relationships with various species. Students gain knowledge and skill in the fundamentals of animal sciences, understands and Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment. Students Understand the

complex evolutionary processes and behaviour of animals and Correlates the physiological processes of animals and relationship of organ systems. Students Perform procedures as per laboratory standardsin the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Entomology, Nematology, Sericulture, Biochemistry, Fish Biology, Animal biotechnology, Immunology and research methodology.

Environmental science gives some basic understanding of the fragile nature of terrestrial environment and the impact of human activity on it. The course offers an Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species.

Medical diagnostics imparts the thorough knowledge of various activities carried out in medical laboratories related to serological and other analysis. This can further help them in vocational activities in medical laboratories **Apiculture, Sericulture Aquarium fish keeping** courses are skill enhancement courses. These courses enable the students to gain knowledge in bee keeping, rearing of silk worms and fish keeping. This can further help them in entrepreneurial ventures related to establish a cottage industry.

Genetics and evolutionary biology imparts the students a basic idea of genes and trends in evolution. It gives opportunities to Understand various concepts of genetics, its importance in human health and ethical principles in delivering duties.

Insect vectors and diseases provide students an idea of economic importance of insects and infectious diseases caused by the insects.

Applied zoology course offers students a thorough knowledge of application of zoology in daily life and how to implement this knowledge in the areas of farming, animal husbandry, pest control, disease control their knowledge and understanding of Zoology to one's own life and work. It also Develop empathy and love towards the animals.

B.Sc. CHEMISTRY

- The study of various applied fields like analytical chemistry, spectroscopy, polymers, cosmetics, pesticides, perfumes and Skill enhancement courses will equip students with the knowledge and skills, which will help them to make a successful career in the respective industries.
- Chemistry being material science will enrich the graduates with better understanding of the physical world around, i.e., the composition of materials, their uses, properties, synthesis and reactions etc.
- Chemistry graduates will learn the proper rules, regulations and procedures for the safe handling, storage and use of chemicals. Hence, they will become eco-friendly and eco-protective. Chemistry graduates will develop the ability to determine hazards associated

with the chemicals use and able to eliminate the harmful impacts on the living beings andenvironment.

- Graduates will be able to use standard laboratory equipment, modern instrumentation and classical techniques to carry out the experiments as well as interpretation of data generated in instrumental chemical analysis.
- The broad knowledge necessary to understand the impact of Chemistry in the global, economic, environmental and social context.
- An ability to use the techniques, skills and modern tools for research activities.
- After pursuing higher education, graduates in Chemistry will become eligible to make successful career like scientists, academician, analysts etc., in different fields like research institute, higher education institutes, industries etc., of national and international repute.
- Chemistry graduates will be the crusaders of the use of clean and green technology for sustainable growth and development.

B.Sc. Botany

After completion of the **B.Sc. in Botany** student will gain basic understanding of the major groups of organisms with an emphasis on plants and be able to classify them within a phylogenetic framework. Students will be able to compare and contrast the characteristics of plants, algae, and fungi that differentiate them from each other and from other forms of life. Students will be able to explain how plants function at the level of the gene, genome, cell, tissue, flower development. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and mode of life cycle followed by different forms of plants. Students will be able to explain the ecological interconnectedness of life on earth by tracing energy and nutrient flow through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems. Students will be able to demonstrate proficiency in the experimental techniques and methods of analysis appropriate for their area of specialization within botany.

Course outcomes

BIODIVERSITY(microbes, algae, fungi and archegoniates)

- Gives the students basic understanding about different life forms like viruses, bacteria, algae, fungi, bryophytes, pteridophytes and gymnosperms.
- Students get general information about ecological and economic importance of

living beings

theselife forms.

Plant Ecology and Taxonomy

Course Learning Outcome:

- To understand the various approaches to the study of Ecology (Autecology, Synecology and Genecology).
- Understand the population and community ecology.
- Basic understanding of the fragile nature of terrestrial environment and the impact of human activity on it.
- Environmental conservation processes and its importance, pollution control, bioremediation, global warming and climate change.
- Understand plant communities and ecological adaptations in plants.
- Conservation of biodiversity.
- Understand the botanical regions of India and vegetation
- types.Gain knowledge about Botanical Survey of India (BSI).
- Briefly studied on herbarium techniques.
- Learn the taxonomic evidences from molecular, numerical and chemicals.
- Understand the concepts of plant taxonomy and classification of Angiosperms.
- Understand various rules, principles and recommendations of plant nomenclature used in plant identification.

Plant Anatomy and Embryology

- Understand the scope and importance of
- Anatomy.Know various tissue systems.
- Impart information about various types of tissues.
- Understand the structures of dicot and monocot root, stem, leaf.
- Understand the normal and anomalous secondary growth in plants.
- Understand the various floral parts and reproduction organs.
- Understand the concepts of pollination and fertilization, endosperm and
- embryogeny.Learn about double fertilization and their significance.
- Structure and development of dicot and monocot
- embryo.Structure of seed, fruit and their mode of dispersal.

Plant Physiology and Metabolism

Course Learning Outcome:

- Impart an insight into the various plant-water
- relations.To illustrates knowledge of mineral nutrition in plants.

- To understand the molecular mechanisms of various metabolic & physiological processes occurring in plants.
- To acquire the knowledge about growth & development in plants.
- To equip students with skills & techniques related to plant physiology so that they will be able to address applied questions and issues such as agricultural concerns, management of threatened species and habitats and global changes.

Cell and Molecular Biology

Course Learning Outcome:

- To introduce students to fundamental principles of cell biology.
- Distinguish between prokaryotic and eukaryotic cells.
- Describe the structures and functions of cell
- organelles.Describe the eukaryotic cell cycle, mitosis and meiosis.
- Discuss the most significant discoveries and theories through the historical progress of biological scientific discoveries and their impacts on the development of molecularbiology.
- To understand basic molecular processes occurring in cells, with emphasis on the Central Dogma of Molecular Biology and the how flow of genetic information is regulated to control cell behavior.

Demonstrate the knowledge of common and advanced microscopy practices in cell and molecular biology.

Economic Botany and Biotechnology:

- Economic botany helps the students to know about the uses of the plants.
- It gives the students information about different aspects like type of soil, weather conditions, improved varieties etc. so that final yield can be enhanced.
- Biotechnology is one of the emerging and developing field in India.
- The scope of the subject is enormous as a lot of research is going in this area and by studying basic techniques at undergraduate level will surely help the students in the future.

Bio-fertilizers (SEC) Course

Learning Outcome:

- To understand the need of bio-fertilizers in present scenario.
- Discuss the concept and classification of bio-fertilizers.

- To learn the methods & techniques to isolate, culturing and large scale production of *Frankia*, *Rhizobium*, *Azspirillum*, *Azotobacter*, *Azolla*.
- To know about Mycorrhiza – VAM association, types, occurrence, collection, isolation and Inoculum production
- Field-application of various bio-fertilizers.
- To study the methods of organic farming.

Gardening and Floriculture (SEC)

Course Learning Outcome:

- By studying this course students know about different gardening and floriculture techniques.
- Different flowering plants and how to take their care etc.

Medicinal Botany and Ethnobotany (SEC)

Course Learning Outcome:

- Know about history and relevance of herbal drugs in Indian system of medicine
- Learn the macroscopic and microscopic characters, chemical constituents,adulterants, therapeutical and pharmaceutical uses of medicinal plants.
- Understand the techniques for drug evaluation (Chemical, Physical and Biological),
- Phytochemical investigations, standardization and quality control of herbal drugs
- Know the technique of medicinal gardening - Cultivation practices, marketing and utilization of selected medicinal plants
- Understand the role of plants in human
- welfare.Know importance of plants and plant products.
- Understand the chemical contents of the plant products.

Mushroom Cultivation Technology (SEC)

Course Learning Outcome:

- The students will acquire sufficient academic experience and become self employed inthe mushroom production.
- Students will understand the basic information on mushrooms production and

diseasemanagement of mushrooms
1. and software reuse.

2. B.A. (History, Political science, Economics, Hindi, English, Music, Sociology) :-

B.A. History

History subject has its own value in society and human life. It helps the students to develop their ethical and social value. They could gather knowledge about the heritage and tradition of their own country and the others. There is huge potentiality in future of a history student. Various options are opened to history students to choose their career. A history student may choose his or her career in journalism or any other editorial board. They may get job in museum, archives and libraries. Beside those, in the field of research and archaeology they may proceed.

COURSE OUTCOMES OF HISTORY HISTORY

OF INDIA UPTO C. AD.1206

Students of History can achieve knowledge regarding geographical background and sources with approaches to Ancient Indian History. They learn about pre and proto history of our country, emergence and growth of earlier dynasties like Maurya, Gupta and the empires in Post Maurya period as well as in Post Gupta period.

HISTORY OF INDIA C. AD. 1206-1707

The history of Delhi Sultanate is thoroughly described in this portion. Students can gather knowledge regarding Sultanate administration, socio-cultural –political situation of Delhi under Sultanate.The Mughal is a topic of controversy and attraction for their purse-proud to history lovers. Student can learn from this course how did Mughal polity, economy, trade, commerce, society,culture become so famous in medieval period.

HISTORY OF INDIA C. AD. 1707-1950

Students from history stream will get knowledge about the penetration, expansion andconsolidation of British Rule in India. Students of History acquire knowledge about communal politics, partition in India in between 1947-1950.

MODERN AND CONTEMPORARY WORLD HISTORY

Students come to know about the emergence of Napoleon Bonaparte in Europe and his expansion, consolidation, downfall, Also know about Vienna Congress, Metternich, Bismarck and his diplomacy, system of alliances, 1917 Russian Revolution, Fascism, Nazism and the origin of World War II. Students will gather knowledge about the impact of the Second World War on the International System like Cold War, emergence of third world, non-alignment, bipolar world through this course. The system of military and economic alliances, decline of European Imperialism, decolonization has been explained in this course

B.A. Political Science

This course provide learners with knowledge and skills needed to prepare for fashion level with deep knowledge in teaching, administrator, lawyer and political scientist etc. This program also provides basic knowledge of political education. It trains about the political andgovernment at local, state national and global level. Political science organizes guest talk by scholar to encourage the students think critically and gives information about public life and politics. This department helps the students to take part in various programs conducted by thehumanities department of the college and outside.

COURSE BA POLITICAL SCIENCE OUTCOMES

SUBJECT	OUTCOMES
Introduction to Political Theory	To understand the political theory and to have a knowledge about the significance of political theory.
Indian Government and politics	The study of Indian government and politics provides the whole knowledge of the Indian government and politics to the students. This encourages the students to think and analyse the politics of India
Comparative Government and politics	Comparision of the local, state and national government unable the students to make a comparison of different governments.
Introduction to international relations	It enable to the students to understand the relations of one nations with the others in the world for example collective security, balance of power etc. It studied about UNO which maintain the international peace and security
Legislative supports	It includes the knowledge of law, articles, rights and duties of the nations
Public opinion and survey	It enable the students to learn the ideas of great political thinkers of the ancient as well as modern time.

Themes in comparative political theory	To understand the comparative analysis of different government and political system of the countries like UK, USA, China, India, and Switzerland,
Democracy and governance	It helps to understand the students about the democratic setup and Indian government and state government.
Administration and public policy	It helps to understand about the structure of civil services and organizations and enable the students to have the knowledge about budget preparations and executions
Understanding globalization	It inculcate the knowledge of globalism and the sense of oneness, helpfulness at international level

B.A. Economics

Economics gives an opportunity to the students to learn about the economy of India and world. It provides knowledge of economic affairs all over the world. Economics provide knowledge from where one rupee is coming and where it goes to. Economics gives knowledge to the students how the monetary and fiscal policies are working in the country. Italso gives information about the working of industries. Economics provide information of employment, poverty, small scale industries, banking service etc.

Course specific learning outcome of BA Economics

Microeconomics:

Microeconomics provides the basic knowledge of economics, it origin and growth to the students. It also gives knowledge of price and output determination in the market.

Macroeconomics:

It gives knowledge to the students of macroeconomics aspects of economy like national income, employment, investment etc.

Indian Economy:

It provides important information about the Indian economy to the students. It also provides knowledge of poverty, unemployment, government policies, land reform, agriculture patternsin India.

International Economics:

International economics gives an opportunity to the students to understand the trade betweendifferent countries. It also provide us the knowledge of functions of international organizations WTO, WORLD BANK, ADB, G-20, SAARC etc.

Elementary statistics:

It gives basic knowledge of statistics. A student after gaining knowledge of statistics can go for research in higher studies.

Public Finance:

Public finance gives an opportunity to the students to know the economic affairs of a government. A student can gain knowledge of budget, tax structure, fiscal policy, government expenditure with the help of public finance.

BA Music

In our college music department is running classes up to graduation level. Both vocal music and instrumental classes are running. The department intends to raise the level of curriculum so that more students can seek admission into music course.

B.A. First Year

Basic Principles of Indian Music & Biographies of Musicians

Paper I MUSA 101

After the completing the course the students will have a knowledge of-

Students will be able to know the status of twelve swar's

Students will be able to understand the distance and difference between two swar's.They will be able to know different ragas and their jatis

They will learn to play instruments Tanpura, Sitar, Tabla and Harmonium

Paper I Practical MUSA 102

Able to recite five alankaras in all ragas, sargam sangeet in two ragas and Lakshangeet in all ragas

Play five alankaras in all ragas especially in harmonium, play Drughat in all ragas and play basic technique on Mizrab's bol

Able to play Tanpura

Theory of Indian Music (General) & Biographies of Musicians

Paper II MUSA 103

After completing the course, the students will gain insights of-

The life sketch of famous musicians along with their contribution in music such as Pt. Jaidev, Pt. Ravishankar etc.

Able to know Ragas (Yaman, Bhoopali & Bihag) and Tala (Ektal Jhaptal)The

Vakra Swara, Varjit Swara

Paper II Practical MUSA 104

Students will able to recite Ragas (Yaman, Bhoopali & Bihag) and Tala (Ektal Jhaptal)

The students will be able to play Sargam Sangeet in Harmonium

B.A. Second Year

Theory of Indian Music, Ancient Granthas & Contributions of Musicologists

Paper III MUSA 201

After completing the course, the students will have Knowledge

of-Writing along with notation of different Raag's of the syllabus

A knowledge of different Ragas (Raga-Maru-Bihag, Malkunas , Vridavani Sarang)

Paper III Practical MUSA 202

Able to sing Vilambit Khyal, Madhya Laya Khyal in Ragas Maru-Bihag, Malkunas , Vridavani Sarang

Able to recite Thekas, Dugun & Chaugun of Chautala, Dhamar & Roopak

Playing of Harmonium with Alankaras and Bhajans

Theory of Indian Music, Medivial Granthas & Contribution of Musicians & Musicologists

Paper IV MUSA 203

After completing the course, the students will have Knowledge of-

Ragas (Raga Bageshree, Jaunpuri, Miyan Malhar) and Talas (Chautala, Rupak & Kherva)

The life sketch of famous musicians along with their contribution in music (Vidushi Kishori Amonkar, Pt. Nikhil Banerjee, Ustad Vilayat Khan

Paper IV Practical MUSA 204

Able to sing Vilambit Khyal, Madhya Laya Khyal in Ragas, Raga Bageshree, Jaunpuri, Miyan Malhar

Able to recite Chautala, Rupak & Kherva

Playing of Harmonium with National Anthem and Himachali Folk Songs

B.A. Third Year

Theory of Indian Music, and study of Ancient Granthas & Ragas Paper DSE I-A

After completing the course, the students will have Knowledge of-

Folk Music of Himachal

Modern Trends going in music

Stinged Instruments used in Hindustani Classical Music

Biography of Pt. Bhim Sen Joshi & Lata Mangeshkar Able

to know Das Prans of Taal

Paper I-A Practical

Able to sing Vilambit Khyal in any of Ragas

Madhya Laya Khyal in all Ragas, Dhrupad in any of Raga

Able to recite Thekas, different layakaris of Teentala, ektala,

Chautala,dadraTheory of Indian Music and Gharanas Tradition Paper DSE I-B

After completing the course, the students will have Knowledge

of-Nibadha, anibadha, prabadha, varna, chorus and orchestra

Basic knowledge of Tabla & Pakkawaj

Thumri, tappa, dadra and chaturung music

types

Paper Practical I-B

Able to sing Vilambit Khyal in any of Ragas prescribed

Madhya Laya Khyal in all Ragas, Dhrupad in any one of Raga

Able to recite Tilwada, japtila, Dhamar, Roopak and Kherva

Able to sing Bhajans with harmonium

Knowledge of five films songs each in Raags, Bhairavi & Malkauns

BA Hindi

quality which helps them in their future life to achieve the expected goals.

- realization of human values
- sense of social service .
- responsible and dutiful citizen
- critical temper
- creative ability

Program Specific Outcomes B.A. (Hindi) on completion of B.A(Hindi), Students are able to:

1. To understand the basic concept and subject of Hindi & its origin.
2. To understand various aspect of Hindi literature with a process to reach methodand giving new mode and direction.
3. To make a attempt in different area and theory such as vocabulary and viceversa.
4. To understand in the literature more in a broader area then Maryconfined to subject.
5. To know about Hindi literature its roots cause perspective and methods.
6. Elaborating and understanding philosophical methods of Hindi literature.
7. Evaluating the concept of Hindi from past to present and making society moreclosely through literature.

Paper Name: functional Hindi

On completion of the course, Students are able to

1. To able to understand various forms of functional Hindi according to its areaand application.

2. To able to understand the importance of translation.
3. To able understand various forms of writing in media.
4. To able to understand the concept of information technology.
5. To able to use study material from website of Hindi literature
6. To able to understand the role information technology in employmentgeneration.

Paper Name:- History of Hindi literature

On completion of the course Students are able to:

1.To able to understand the origin of Hindi language and its literature

2.To able to understand identify the dialects of Hindi language family

3.To able to analyse the development of Khariboli of Hindi.
4.To able to understand the concept of History of literature.

5.To able to understand the basic of classification of Hindi literature.

Paper Name – Linguistic, Hindi language and Hindi grammar

On completion of the course, Students are able to

1.To able to understand the concepts of linguistic.
2.To able to understand different flows of Hindi language (Rajbhasha, kshetribhasha).

3. To able to understand the introductorily concept of Hindi grammar.
4.To able to understand the importance of linguistic.

5.To able to understand the origin and development of Hindi language
6.To able to understand the different forms of khariboli (Hindi,Urdu).

B A English

After the completion of this programme the student will have: ability to gain proficiency in communication and other soft skills.

: The knowledge of various genres of literature.

:Knowledge of foundation texts of literature in English

:Understanding the basic advanced grammar of English and grasp basic linguistic skills used in works of literature.

:Understanding the development of English language.

: Use of English effectively in formal and informal situations.

: The confidence to appear for competitive exams for getting jobs in industry and govt. sector.

Course Outcomes

Writing Skills AECC

: Increases confidence in the ability of students to read comprehends.
: Increases vocabulary through the study of word parts.
: uses standard grammar, punctuation and speiling.
: Develops ideas with coherence and cohesion.

English Literature.1

: Deals with understanding of aesthetic, moral and cultural trends of literature.
: Gains understanding of the unique aspects of the diverged literatures of the world.
:Deals with prose and poetry of different countries of Europe.

British Literature (Play and Novel)

: Gains understanding of various trends of drama
: Provides framework for understanding the culture of England.
; provides social and cultural knowledge of people of England in 19th cen.

Translation Studies and Principles of Translation

: Deals with the different approaches to translation.
: Provides knowledge of different methods of translation such as meta-phrase ,para- phrase and imitation.
: Deals with problems of translation.

B. A. Sociology

Programme Specific Outcomes

❖ The BA Sociology program offers twelve courses in all. Students have to opt for ten courses viz:

1. Four discipline specific courses (DSC) (two each in BA 1st and 2nd year);

2. Four Skill Enhancement Courses (SEC) (two courses each in 2nd year and 3rd year);

3. Two Discipline Specific Electives (DSE) in the third year of the BA programme.

❖ Students opting Sociology as DSC-II have to study 6-courses viz: four DSCs and two DSEs, respectively.

❖ The Sociology department also offers two Generic Electives (GE) in 3rd year for students studying subjects other than sociology.

BA Sociology Course-wise learning objectives and outcomes are as follows:

Class	Course Title	Course Code/type	Learning outcome
BA 1st year	1. Introduction to Sociology	SOCL-A101 (DSC-1A)	The students will: • Acquaint themselves with the meaning, origin and development of sociology. • Introduced to basic concepts of Sociology like Society, Community, Institutions, Association, Group, Social Structure and function, Status and Role etc. • Understand the differences and similarities of sociology with other social sciences, and areas of interdependence. • Subject matter and importance of sociology. • Understand the future career options

Literary Cross-Currents.

:Deals with modern poems and short stories.
: Provides information about modern Indian translated stories and play.

Technical Writing AEEC/SEC

:Provides understanding of features of technical writing, methodology project report, dataanalysis etc.
: Provides proficiency in language skills.

Business Communication

: Deals with basic forms and barriers of communication.
:Gives understanding of writing skills and modern communication.
: Develops the knowledge of non-verbal aspects of communication.

Soft Skills

:Provides the understanding of listening skills
:Deals with the characteristics of team work, emotional intelligence and adaptability.
:Throws light on the features of problem solving and interview skills.

Academic Writing and Composition.

: Represents types of academic writing.
: Develops the features and conventions of academic writing.
: Deals with process of academic writing, critical thinking and paragraph writing.

Compulsory English

:Deals with English poetry and Indian short stories.

:Provides the understanding of determiners ,prepositions, verb forms ,phrasal verbs and comprehension.

			through sociology.
	2. Society in India	SOCL-A 102 (DSC-2A)	Students will: • Be introduced to the basic features of Indian society. • Get to know the multicultural nature of Indian society. • Will get to know about the different social institutions and understand their functions. • Develop a sociological understanding of various prevalent concerns of Indian society like communalism, casteism etc.
B.A 2nd year	3. Sociological Theories	SOCL-A 201 (DSC-1C)	Students will: • Be introduced to the classical sociological thinkers, whose work has shaped the discipline. • Be equipped with theoretical insights to help them analyze and interpret the social scenario around them. • Be acquainted with the different sociological perspectives and theories.
	4.Methods of Sociological Enquiry	SOCL-A 202 (DSC-2C)	Students will: • Have a general introduction to the sociological research methodology. • equipped with basic research understanding and skills. • Introduced to various steps in conducting social research. • Acquaintance with different types of research and issues in research. • Understand the utility of research for social development.
	5. Techniques of Social Research	SOCL-A 203 (SEC-1)	Students will: • Enhance the skills of students to understand and use techniques employed by social scientists to investigate social phenomena with emphasis on formulating research design, methods of data

			collection, and data analysis. • It will provide students with some basic knowledge on how to conduct quantitative and qualitative research. • The focus will be on better understanding of research by the suggested field exercises.
	6.Sociology of Environment	SOCL-A 204 (SEC-2)	Students will : • Will sensitize students about the issues related to environmental concerns. • Will understand the interrelationship of environment and society.
BA 3rd year	7.Social Demography	SOCL-A 301 (SEC-3)	Students will : • Have an understanding of the interrelation between population and society. • Understand the concept of fertility, mortality and migration in the demographic processes. • Be acquainted with recent trends in demographic transitions. • The students can- - Understand population growth of the world and India and various facets of population studies. - Understand demographic theories that depict population change. • Learn about the various policies and programmes adopted in the country to check population.
	8. Theory and Practice of Development	SOCL-A 302 (SEC-4)	The course will: • Acquaint the learners with emerging issues of development theory and methodology of development practices adopted since the 1980s. • Help in understanding the conceptual classification of under developed, developing and developed nations. • Help in analyzing the role of Panchyat Raj System(PRI's), Urban Local Bodies(ULB's) and Non-government Organisations (NGO's) in the Development processes.

9. Marriage, Family and Kinship	SOCL-A 304 (DSE-1A)	Students will: • Acquaint themselves with the basic social institutions: marriage, family and kinship. • Will able to critically examine contemporary issues in the fields of marriage, family and kinship. • Considers theoretical issues and ethnographies with particular emphasis on diversity of practices.
10.Social Stratification	SOCL-A 305 (DSE-2A)	Students will: • Be introduced to various ideas of social inequality and their sociological analysis. • The different forms and institutional manifestations of social stratification are explored here both theoretically and through case studies.
11. Polity and Society in India	SOCL-A 307 (GE-1)	Students will : • Able to understand the definition, nature and scope of political sociology. • Course seeks to introduce the students to the study of Indian politics from a Sociological Perspective. • In the process, it attempts to give the students theories, categories and conceptual tools to understand politics in relation to society in general. • The course aims to provide knowledge on the relationship between Sociology and politics and the interaction between society and political structures. • Understand concepts of power, party system, pressure groups, bureaucracy, democracy, civil society and its functions.
12. Economy and society	SOCL-A 308 (GE-2)	Students will : • Be introduced to the complexities of economic activity embedded in social relations from sociological view point. • Acquainted with different type of modes of production. In short sociological learning provides initial empirical knowledge about society, social life, social institutions and social interactions. It also prepares learners

			for social life by inculcating values, morals, manners and help in building positive attitudes.

In short sociological learning provides initial empirical knowledge about society, social life, social institutions and social interactions. It also prepares learners for social life by inculcating values, morals, manners and help in building positive attitudes.

3. B.Com

This course aimed at to increase the capability of the students at professional level with deep knowledge in Accounting, Income Tax, Management, Finance and Indian Economy. Course is also enabling to meet the present demand of different corporate entities to provide employment opportunities for the students. Students will provide themselves in different competitive exams like C.S, MBA, C.A as well as Banking, Insurance and Civil Services. This course also provide practical skills by various subjects and students get subject skills to work as a tax assistant, auditor, tax consultant, investment planner, security advisor etc.

COURSE SPECIFIC OUTCOMES

SUBJECT	OUTCOMES
Financial Accounting	Students gain the basic knowledge of accounting concepts and conventions, journal, ledger, trial balance and balance sheet. Students are enabled with practical knowledge of accounting software packages like Tally etc.
Business Statistics and Mathematics	Students gain practical skills by applying different statistical tools and techniques like measures of

	average, correlation and regression, Index number etc. Students will be able to do their research in this particular field.
Management Accounting	Student learns different types of activity based management tools through the preparation of estimates. Calculate various accounting ratios, reports and relevant data.
Income Tax Law and Practice	It aimed at acquire practical knowledge and equip students with applications of Income Tax Act, 1961 and the relevant rules. To complete the income tax returns procedure Applying an understanding of the common penalties of income tax act.
Business organization and management	To provide wide knowledge regarding management functions and different forms of business organizations. Understand the importance of principles of management
Corporate Accounting	To gain the basic knowledge of corporate accounting and learn the techniques of preparing financial statements. Students learns share capital, valuation of share and goodwill and the concept of holding company.
Cost Accounting	Students learn cost control and how to minimizingthe wastages. It attained helps in reducing the wastage during themanufacturing process and improves efficiency.
E- Commerce	Demonstrate an understanding of the importance ofE-commerce Analyze the impact of E-commerce on business models and strategy. Discuss the various legal issues in E-commerce.
Computer Applications in Business	To acquaint students with practical aspects by using word, excel and power point. To understand the different types applications of

	software.
International Business	Identify the characterstics of various international trade theories Role of foreign trade policy in context of Indian business houses.
Business Law	It impart basic knowledge of the important business legistations, and it includes general principal of law of contract, the sales of goods act1930, the negotiable instrument act, 1881. Students learn the practical aspect regarding these laws.
Entrepreneurship	Enable students to understand entrepreneurship development, awareness on various entrepreneurship development programme, knowledge of entrepreneurial skills.
Company Law	To impart students the knowledge of Company Act, 2013 and provision of these act. Students learn about the new concepts of Company Act, 2013 like one man company, key managerial personnel
Indian Economy	Classify the concept of economic growth and development Learn the concept of NITI Aayog and difference between planning commission and NITI Aayog Know the main aspects of Human Capital Formation
Principles of Microeconomics	It intends to explore the students to basic principles in microeconomics theory and illustrate with applications. Student learns about market structure like perfect competition,monopoly,monopolistic competition andoligopoly.
Fundamentals of Financial Management	Demonstrate the applicability of the concept of financial management to understand the managerial decision and capital structure. Understand the EBIT-EPS Analysis associate with leverage

Corporate governance and auditing	Students learns application of auditing principles in present business operations. Demonstrate awareness and practices of auditing principles. It enables students to acquire knowledge of different types of auditing functions and procedures.
Economy of Himachal Pradesh	Students learns features of Himachal pradesh Economy, agriculture and horticulture of H.P. It enable students to aquire knowledge of industrial and power sactor of Himachal Pradesh.