G.G.D.S.D. COLLEGE, HARIANA (HOSHIARPUR)

Program Outcome (PO)

Program Specific Outcome (PSO)

Course Outcome (CO)

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G.G.D.S.D. College offers undergraduate courses in five streams: Arts, Science, Computer Application, Agriculture and Commerce and post-graduate courses also in five subjects: Punjabi, History, Computer Application, Agriculture and Commerce.

UG

Program Outcome (Arts stream):

The Bachelor of Arts requires three years of full time study consisting of six semesters. The College offers nine arts subjects during the degree: English, Punjabi, History and Culture of Punjab, History, Political Science, Physical Education, Economics, Music and Hindi. Bachelor of Arts degree is focused on increasing a students' knowledge and critical thinking in accordance to the syllabus and curriculum prescribed by the affiliating Panjab University, Chandigarh. These courses aim to prepare students with a sound knowledge and skills to connect across geographical, disciplinary, social and cultural boundaries, understand the importance of ethical behaviour and lifelong learning habits thus creating in them the realisation of human values, sense of social service thereby making them responsible citizens of the country with creative ability and critical temper.

Program Specific Outcome (English):

1. Basic knowledge of English as Language which is essential to understand English literature.

2. Students get basic knowledge of the English grammar when they acquire their degree.

3. Knowledge of English language helps them to think critically while studying English literature. They are able to relate pleasure of literature and real life.

4. They are able of understand and communicate as English has become the global language.

5. The knowledge of English opens up the vast content of information available on any subject online and offline.

6. The student with a good knowledge to English can appear in any competitive exam in India and abroad.

Course Outcomes (English)

BA 1st Paper-1 English @ Work & Grammar	The students are exposed to the best examples of Prose and Poetry in English. The poems prescribed in the syllabus provide the students knowledge about various issues such as spirituality, loss and recovery of self, the experience of creative flow of poetry writing process and racial discrimination etc. The prose section provides the students knowledge about the uses of English language while speaking and writing, how to write a piece of writing in a good and effective way, how one takes revenge on being cheated by others and memorable speech of the 20th century by the great Martin Luther King. So all these topics make the students realise the communicative power and the beauty of English. The Grammar part helps the students to be strong in grammar and its usage.
BA 1st Paper-2 English @ Work & Grammar	The students are provided with an opportunity to get knowledge about some important issues such as discrimination on the basis of colour, pessimistic feeling due to loss of faith among humanity, futility of war and the unimportance of an individual in the world. From the prose chapters, the students learn about the wrong education system, morality of helping a misled youth to start and lead a good life, knowledge about law and the importance of water. All these themes presented through the poetry and prose section of the book teach the students about each and every aspect of human life. It also helps them to be accurate in both oral and written communication. The grammar portion helps the students to be accurate in grammar and its usage at various levels.
BA 2nd Paper-1 English For Empowerment & Grammar	The students get knowledge about various forms of literature so that they appreciate the creative and influential use of language in literature. They come across various themes such as various seasons, the importance of choosing one out of two options in one's life, materialism in the modern society and the strong assertion of faith and optimism of a person discriminated on the basis of race. From prose, the students get knowledge about various types of persons, experience of film making, the courtesy and the advantages and disadvantages of advertisement etc. The Grammar part enhances the students' writing skill, sentence formation and accurate use of English where it is required.
BA 2nd Paper-2 English For Empowerment & Grammar	The prescribed poems and prose chapters teach the students about the incorrect use of English by Indians, the importance of being compassionate and sympathetic, the importance of originality of a person and the feeling of nostalgia. It also adds to the knowledge of the students about the custom of shaking hands and other customs of greeting in other countries, the future

	vision of the world through the World Federation, its power and effectiveness, the necessity of freedom of the Press, the importance of a community in the society etc. The prescribed book helps the students in developing and improving their reading and writing skills in English step by step. The glossary improves the vocabulary greatly as the pronunciation and the meaning of the selected words are also given in the text. The study of world literature gives value education, soft skills and social competence to the students.
BA 3rd Paper-1 Insights (A Course in English Literature and Language) & Grammar	The poetry and prose in the text book has been prescribed with the focus on enhancing the four language skills of the students. It provides knowledge to the students about various genres of English literature. Such themes are chosen which the students can relate to their own lives and the lives of the people of their acquaintance. The themes of relationship, self-development, contemporary issues, life stories, sports, mass media and technology are chosen to enhance the knowledge of students. The grammar topics are selected to teach students through activity based methods so the whole course intends to enable the students to read, write and speak the English language with the reasonable degree.
BA 3rd Paper-2 Insights (A Course in English Literature and Language) & Grammar	The poetry and prose prescribed for the class focuses on enhancing the four language skills of the students. It provides knowledge to the students about various genres of English literature. Such themes are chosen which the students can relate to their own lives and the lives of the people of their acquaintance. The themes of relationship, self-development, contemporary issues, life stories, sports, mass media and technology are chosen to enhance the knowledge of students. The grammar topics are selected to teach students through activity based methods so the whole course intends to enable the students to read, write and speak the English language in an effective way.
B.Sc. (Non-Medical) Paper-1 Varieties of Expression & Grammar	The syllabus includes Prose and Drama from which the students learn about the importance of pure heart to be a great judge, the importance of being kind to others, how sometimes extraordinary incidents occur in one's life and about how the fussy people create fuss and mess everywhere in the world. The drama teaches the students that nation is above everything and about the deadliest battle of Waterloo. The Business Communication focuses on teaching different aspects of communication in general and business communication in particular. It also tells how to communicate with organizations, types of communication and significance of positive attitude in improving communication etc. It also enhances the writing skills of the students.
B.Sc. (Non-Medical) Paper-2 Varieties of Expression & Grammar	The syllabus includes Prose and Drama from which the students learn about the importance of pure heart to be a great judge, the importance of being kind to others, how sometimes extraordinary incidents occur in one's life and about how the fussy people create fuss and mess everywhere in the world. The drama teaches the students that nation is above everything and about the deadliest battle of Waterloo. The Business Communication focuses on teaching different aspects of communication in general and business communication in particular. It also tells how to communicate with organizations, types of communication and significance of positive attitude in improving communication etc. It also enhances the writing skills of the students.
B.Com 1st Paper-1, Paper-2 English and Business Communication Skills	The syllabus is prescribed to let the students know about various forms of literature as Short Stories, One Act Plays and Essays. It provides knowledge about the writers and their writings belonging to different countries, about their culture and life style. The Grammar included in the syllabus aims at improving the English language proficiency of the students by developing

Ten Mighty Pens & Grammar	their reading, comprehending, writing, listening and speaking skills. It also helps in self disclosure, expressing your needs, recognizing your hidden agendas and prepares the learners in Business English for effective communication as employees after being employed.
BCA 1st Paper-1, Paper-2 Colours of Expression	The text provides knowledge to the students about various genres of literature as Short Stories, Prose Essays and Poetry and develops their reading skill. The Grammar part of the paper has been designed to improve the writing skill of the students as sentence making, letter writing of different types etc. It also enhances their knowledge about idioms, phrases and translation.
B.Voc 1st (Banking and Financial Services) (Hardware and Networking) Paper-1, Paper-2 Communication Skills	The syllabus of this course includes various topics which help in developing career- enhancing skills in business communication. The knowledge about good communication skills adds an edge to the skills and talents of the students. Effective networking skills, making presentations, providing leadership and influencing people all depend upon good communication. So the course will help the students in a great way after getting employment.
BA 1st (Elective English) Paper-1, Paper-2 A Collection of Essays, Short Stories and One Act Plays	The study of literature specifically develops the skill of reading the minds of people and also inculcates the sharp critical sense of understanding the social phenomenon from different angles. Therefore, syllabus of this course enables the students to read different genres of literature as essays, short stories and one act plays and express their ideas on various topics.
BA 2nd (Elective English) Paper-1,Paper-2 An Anthology of English Verse.	The curriculum helps the students for their all-round development by making them confident to read, write and speak in a more effective way. They come across so many various forms of literature and develop their interest for reading and become and create more good human stuff.
BA 3rd (Elective English) Paper-1, Paper-2 Modern Indian Literature in Translation: Poems and Stories	It provides understanding of literary terms, concepts and genres to the students and develops their ability to read, analyse and write about different literary texts. The students are enabled to explore, discuss and express their views on various topics. It also helps in providing a comprehensive knowledge of English language and literature.

Program Specific Outcome (Punjabi):

A student, who has taken admission in program of B.A. with Punjabi as Compulsory or Elective subject of study is expected to achieve following outcomes:

1. To develop a bonding with the mother tongue of the student.

2. The student gets to know and understand his/her native language in a far better way.

3. The student gains the knowledge and understanding of the various intricacies of the grammar and literature of Punjabi.

4. The student gains the knowledge and understanding of the rich folk and cultural heritage of Punjab.

5. The program connects the students to their roots.

6. Knowledge of Punjabi language helps them to think critically while studying Punjabi literature. They are able to relate pleasure of literature and real life

Course outcome (Punjabi):

Course	Knowledge	Skill	Overall Behavior Change
B.A	Human Values, Historical perspective of life, knowledge of culture	Stage Conducting skills, Event management, performing Arts skill on and off the stage .Etc.	Leadership qualities , Social work, Thought Changing process, Exposure to social Organizations
B,Sc	Knowledge of Culture, refreshing of mind due to different type of knowledge	Skill of language certainly improves cognition process	Student learns to fight with adversities
B.Com	Course knowledge in Mother - Tongue	Field work performance enhancement, making advertisements. Drafting office notices.	How to fight with odds in life
B.C.A	Enrichment of cultural values	Proof reading skills Language proficiency	Shaping a positive personality
M.A	Drama, linguistics, Culture, psychology etc.	Literary journalism, Teaching Literature skills, Theatrical	Leadership Qualities, personality Development. Life changing Thought Process

Program Specific Outcome (History and Culture of Punjab):

A student, who has taken admission into program of B.A. with History and Culture of Punjab as a subject of study is expected to achieve following outcomes:

1. The student gets to know of the rich history and culture of Punjab.
2. The student gains a better knowledge and understanding of the various ages through which Punjab has evolved to its present state.
3. To think and argue critically of the culture and history of Punjab.
4. To develop a bonding and liking of one's own roots.
5. To develop a liking and intention of pursuing the subject for the higher studies.
6. The students who do not have any knowledge of Punjabi as a language opt for this subject. They are made aware of the rich social and cultural heritage of Punjab.

Program Specific Outcome (History):

A student, who has taken admission in program of B.A. with History as an Elective subject of study is expected to achieve following outcomes:

1. Understand the basic themes, concepts, chronology and the Scope of Indian History.
2. Acquaint with range of issues related to Indian History that span distinct eras.
3. Understand the history of countries other than India with comparative approach.
4. Think and argue historically and critically in writing and discussion.
5. Prepare for various types of Competitive Examinations.
6. Critically recognise the Social, Political, Economic and Cultural aspects of History.

Course outcomes

Course	Course name	Course outcomes
B.A.SEM l	History of India Upto1200AD	In this paper students will learn about the history of ancient India upto 1200AD.it enables them to understand sources of history, harrapa civilization,Vedic age, Jainism and Buddhism. They also learn about maurya, post maurya,gupta Empire alongwith northern and southern states of India with the help of map.
B.A.SEM ll	History of India 1200-1750	The paper medieval India seeks to examine the major political developments from the thirteenth to seventeenth century.student will learn about the processes of State formation in the Delhi sultanate and Mughal Empire.map of important places will help them to understand about medieval history.
B.A.SEM lll	History of India 1750-1964	In this course students will learn about the battle of buxer and Plassey and British administrative reforms of various governor general's. They also learn socio-religious reform movements, depressed classes movements, Indian national movement, partition alongwith the map of important historical places.
B.A.SEM IV	History of Punjab	Students will enable to learn about the Sikh history,annexation of Punjab into British Empire, early British administration, British agrarian policies and socio religious reform movements in Punjab. Partition, rehabilitation and resettlement
B.A.SEM V	World History 1500-1870A.D.	In this paper students will learn about world history.it helps them to familiarised with feudalism, renaissance, American and french revolution, unification of Germany and Italy with the help of map of important historical places.
B.A.SEM Vl	World History (1871-1991A.D.)	This paper will enable students to learn abou 19th to 20th century world history .they will learn about partition of Africa, diplomatic development in Europe. It will them to understand about world wars, great depression,post war foundations in world.

Program Specific Outcome (Economics):

A student, who has taken admission in program of B.A. with Economics as elective subject of study is expected to achieve following outcomes:

1. Understanding how different degrees of competition in a market affect pricing and output.

2. Understanding the efficiency and equity implications of market interference, including government policies.

3. Developing research knowledge in economics.

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

5. Developing the knowledge about theories of economic growth & Development and issues of economic planning.

6. Creating awareness about changing macro-economic policies and theories.

Course Outcome

Semester	Subject Name	Result Outcone
I	Micro Economics	Ability to use theoretical concepts of Scarcity, trade-offs, find Opportunity cost, and apply Marginal analysis. Demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output, define equilibrium, solve equations. Calculate supply and demand elasticities, identify the determinants of price elasticity of demand and supply, and demonstrate the relationship between elasticity and total revenue. Ability to find and interpret price Elasticity of Demand, define Determinants of Elasticity, Total Revenue, Income Elasticity, Cross-Price Elasticity of Demand. Summarize the law of diminishing marginal utility; describe the process of utility maximization. Construct Budget Constraint and Utility, Total and Marginal Utility and Law of Diminishing Marginal Utility. Describe the production function and the Law of Diminishing Marginal Productivity; short-run and long-run costs of production, , define Explicit and Implicit Costs. Calculate and graph short-run and long-run costs of production. Identify the four market structures by characteristics; calculate and graph the profit maximizing price and quantity in the output markets by use of marginal analysis. Ability to define structural characteristics of Perfect competition, Demand, Profit Maximization, Short-Run Profits, Decision to Shut Down, Long-Run Adjustment. Determine structural characteristics of Monopoly and Monopolistic competition, Monopoly Demand, Profit Maximization, Efficiency Analysis, solve problems on Price Discrimination.
II	Macro Economics	Macroeconomics is the branch of economics that studies the economy as a whole. Macroeconomics focuses on: national output, price Stability, exchange stability, unemployment, and inflation.Governments can use macroeconomic policy including

		monetary and fiscal policy to stabilize the economy. Central banks use monetary policy to increase or decrease the money supply, and use fiscal policy to adjust government spending.
Iii	Public Finance and International Trade	Develop comprehensive understanding of theories of public finance, public expenditure, public debt , taxation system, international trade , free trade, terms of trade, balance of payments, deficit financing and their application. Thoroughly comprehend concepts and theories related to Public policy and international trade.
IV	Quantitative Techniques	Use of mathematical and statistical tools for data collection, presentation, analysis of data and use of time series analysis, index numbers, correlation and regression in analyzing economic problems.
V	Development Economics	This course is an introduction to Development Economics and is concerned with how economists have sought to explain how the process of economic growth occurs, and how – or whether – that delivers improved well-being of people. The course includes theories of growth. We explore the relationship between economic growth, poverty, inequality, sustainability and human development. The learning objectives of the course are for students to become familiar with the basic theories and concepts on economic growth and its consequences for distribution, poverty and human development.
Vi	Indian Economy	On completion of the course students will be able to: Develop ideas of the basic characteristics of Indian economy, its potential on natural resources. Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government. nderstand agriculture as the foundation of economic growth and development, analyse the progress and changing nature of agricultural sector and its contribution to the economy as a whole.

Program Specific Outcome (Political Science):

A student, who has taken admission in program of B.A. with Political Science as elective subject of study is expected to achieve following outcomes:

1. The students get to know of the important thoughts and concepts of various political thinkers and philosophers of the world that enables an individual understand life in a better way.
2. To observe and think critically of the political events of the country and abroad.
3. Gain an understanding of the various types of political systems across the globe and in the country.
4. Gain understanding of the intricacies of democratic system of the states and centre level in India.
5. Get a comprehensive overview of polity and the various stages through which it evolved in the world.
6. Prepare for various types of Competitive Examinations at various stages.

Course Outcomes:

POLITICAL THEORY	**CO 1-** Analysing what is Politics and explaining the approaches to the Study of Political Science – Normative, Behavioral, Post Behavioral, Feminist. **CO 2-** Assessing the theories of State (Origin, Nature, Functions): Contract, Idealist, Liberal and Neo-Liberal Theories. **CO 3-** Explaining the Concept of State Sovereignty: Monistic and Pluralistic Theories. Analysing the changing concept of Sovereignty in the context of Globalisation. **CO 4-** Classification of David Held's Democratic Theories. **CO 5-** Understanding basic concepts of Liberty, Equality, Rights, Law and Justice. **CO 6-** Assessing empirical Political Theory: System's Analysis, Structural Functionalism. **CO 7-** Explaining Dialectical Materialism and Historical Materialism with special reference to relationship between base and superstructure. **CO 8-** Analysing the theory of class and class struggle. **CO 9-** Describing the Marxist Approach to politics. **CO 10-** Analysing Marx's concept of Freedom and Democracy: Nature, Features and Critique. **CO 11-** Discussing Marx's Theory of State with special reference to Relative Autonomy of the State. **CO 12-** Explaining Marxian theory of Revolution. **CO 13-** Evaluating the major debates in Marxism: Lenin- Rosa Luxemburg debate on Political party
COMPARATIVE GOVERNMENT AND POLITICS	**CO 1-** Tracing the evolution of Comparative Politics as a discipline and drawing a distinction between Comparative Politics and Comparative Government. **CO 2-** Investigating the nature and scope of Comparative Politics.

	CO 3- Analysing the approaches the approaches and models of comparison: systems analysis; structural functionalism; and institutional approach. **CO 4-** Critically analyzing the features of a liberal democratic and socialist political system with focus on UK, USA and the People's Republic of China. **CO 5-** Discussing the features of a federal system with special reference to USA and Russia. **CO 6-** Conducting an intensive comparative study of the Executive (UK, USA, France and Russia); Legislature (UK, USA and the PRC); the Judiciary (UK, USA and PRC). **CO 7-** Critically looking at the rights of the citizens of UK, USA and PRC from a comparative perspective.
GOVERNMENT AND POLITICS IN INDIA	**CO 1-** Introducing the Indian Constitution with a focus on the role of the Constituent Assembly and examining the essence of the the Preamble. **CO 2-** Examining the Fundamental Rights and Duties of Indian citizens with a study of the significance and status of Directive Principles. **CO 3-** Assessing the nature of Indian Federalism with focus on Union-State Relations. **CO 4-** Critically analyzing the important institutions of the Indian Union: the Executive: President; Prime Minister, Council of Ministers; Governor, Chief Minister and council of Ministers; The legislature: Rajya Sabha, Lok Sabha, Speaker, Committee System, State Legislature, The Judiciary: Supreme Court and the High Courts:composition and functions- Judicial Activism **CO 5-** Looking at the Constitutional Amendment Procedure with focus on the main recommendations of the Constitutional Review Commission (Venkatachalliah Commission) **CO 6-** Critically evaluating the Indian Party system – its development and looking at the ideology of dominant national parties **CO 7-** Evaluating the role of various forces on Indian politics: religion; language; caste;tribe; regionalism; business; working class and peasants **CO 8-** Evaluating the Electoral Process in India with focus on the Election Commission:Composition, Functions and Role **CO 9-** Investigating the New Social Movements since the 1970s: environmental movements, women's movement and human rights movement
INTERNATIONAL RELATIONS	**CO 1-** Explaining scope and subject matter of International Relations as an autonomous academic discipline. **CO2-** Approaches and methods to study the discipline through Political realism, Pluralism and Worlds system's Model. **CO 3-** Examining the issues of Underdevelopment, Terrorism, Regionalism and Integration that characterizes the Post second world war order.

	CO 4- Studying the role of Diplomacy, Propaganda and Military capabilities in the making of foreign policy. **CO 5-** Explaining certain basic concepts like Globalisation in contemporary world order. **CO 6-** Describing the Cold War phases and understanding the post Cold War era. **CO 7-** Discussing the developments in European Ethno-nationalism since 1990's. Tracing the growth of European Union **CO 8-** Examining Indian Foreign Policy: Basic Principles, Evolution and Bilateral Relations. **CO 9-** Evaluating the working of UN and its organs; Peace keeping Function and HumanRights. **CO 10-** Analysing the Foreign Policy of USA and China. **CO 11-** Studying the developments in third world countries in post world war II era like NAM: Relevance, ASEAN, SAFTA and SAARC, OPEC, OAU, West Asia-Palestine problem after Cold War

Program Specific Outcomes (Physical Education)

1. Understanding the meaning of physical education for an individual development and improving general health for professional activity.
2. Fostering motivational attitude to the physical education, healthy lifestyle and regular exercising.
3. Learning special knowledge, practical skills, which provide health protection, form compensatory process, correct present health abnormalities, provide mental prosperity, development and improvement of psychophysical skills, form professional qualities of an individual.
4. Body's adaption for physical and mental workload and also at the increasing of the capability of physiological system as well as raising of the resistance of immune defences.
5. Learning the methodology of formation and taking health exercises independently, the methods of self-control while exercising. Hygiene rules and sound schedule for work and rest.
6. Learning how to resist unfavourable factors and working conditions, decreasing fatigue during professional activities and raising the quality of results.

Course outcome (Physical Education)

1. To get Preliminary idea of Physical Education Theory.
2. To study the behaviours of India and World Physical Education.
3. Students learn net surfing in order to get acquainted with different new writing materials.
4. Learn how to access books in e-library.
5. Learn different function of body parts, anatomy, physiology and exercise physiology of players.
6. Learn the different therapy process and use.
7. How to maintain and develop physical fitness.
8. How to organise the standard tournament or competition.
9. Proper rules of different game and sports and officiating of game and sports.
10. How to maintain proper health and active lifestyle.
11. To understand the player psychology.

Program Specific Outcome (Music):

A student, who has taken admission in program of B.A. with Music as elective subject of study is expected to achieve following outcomes:

1. Gets to know of the demonstrative aspects of ragas and their differentiation.
2. Gains the theoretical and practical aspects of the prescribed ragas.
3. Gains the understanding of the basic terminologies of Indian music.
4. He studies about the life and contribution of the composers of Hindustani music, Western music and Punjabi music.
5. Students understand the chronological development of various technical terms, schools of vocal & instrumental music & their styles and musical instruments, their origin, development and present status.
6. Inter-relationship of classical & folk music.

Program Specific Outcome (Hindi):

A student, who has taken admission into program of B.A. with Hindi as elective subject of study is expected to achieve following outcomes:

1. Develops a bonding with the National language of the student.

2. The student gets to know and understand Hindi language in a far better way.

3. The student gains the knowledge and understanding of the various intricacies of the grammar and literature of Hindi.

4. The student gains the knowledge and understanding of the rich folk and cultural heritage of India.

5. The individual gets to know of the unifying language and develops a reverence for it.

6. Knowledge of Hindi language helps them to think critically while studying Hindi literature. They are able to relate pleasure of literature and real life

Course Outcomes:

Course Outcome of B.A Elective Hindi		
Semester	Subject Name	Result Outcone
I	Hindi	In this course students will study Kabir ,Raidas, Guru Nanak Dev ,Surdas 'Kavita lok ' of Dr. Shiv Kumar Sharma. Students will learn about seven stories of Dr.Lakshmi Chandra Khurana . society, affection, politics etc. have been depicted in it. In this course the first kaal of history of Hindi literature will studied and detailed information will be obtained in which the nomenclature of that period time limit circumstances trends at sector will be discussed .It will be useful to read the book of Hindi literature by (Kusum Verma)for the study of this period .In review theory students will be able to read about the company by studying the story definition elements and classification in the same semester. In practical grammar students will be able to understand grammar correct spellings of Hindi by antonym , synonyns ,word refinement, sentence refinement ,one word for sentences.
II	Hindi	In this course 'Kavita lok' by Dr. Shiv Kumar Sharma students will learn about the writings of mirabai, Tulsidas , Giridhar kavirai. In Vrindavan Lal Verma novel 'Jhansi ki Rani ' the students will be made aware of the character traits of virangna Laxmi Bai in this course. The students are taught devotional information will be provided on the subject review in theory information about the novel will be given. Idioms and proverbs collected in this paragraph writing personal letter writing will increase the grammar knowledge of the students. The knowledge of the students will be increased by using technical vocabulary.

Iii	Hindi	In this course poetry book' Tarangini' by Manohar Lal Anand we make students study of maithilisharan Gupt ,Jaishankar Prasad ,Suryakant Tripathi Nirala, sumitranandan pant. Along with this play of Dr. Lakshmi Narayan Lal 'ek Satya Harishchandra 'students will learn the different aspects of ek Satya Harishchandra. Samiksha Siddhant grammar will tell the correct form of Hindi writing to the students synopsis writing, official language writing, elaboration of technical terms etc.
IV	Hindi	In the book written by 'tarangini ' Manohar Lal Anand information should be provided about Mahadevi Verma, agye, Dharmveer Bharati. In this course our main objective is to educate the students through different one acts in the idol one act sector and two educate them from the conclusion of Hindi literature the main aim is to make the students to know about the history and modern literature of Hindi. Apart from this emphasis is given on making and improving the complete outline of the subjects by means of comments review theory concise writing official letter writing elaboration.
V	Hindi	In this ramdhari singh Dinkar 'kurukshetra ' mahakavya students will learn the deeply study of kauravas and Pandavas. Our aim is to inform the students about the earlier from of poetry through definition, distinction , lyric poetry in review theory similarly in prohibition biography etc . our aim is to make you aware of all these teachings . In this semester there is an introduction of rhetoric and abhitakar in ornamentations elements of poetry for poetry by Acharya Davinder nath Sharma and Hindi autobiography vishwabandhu Katha are useful books for autobiography.
Vi	Hindi	First of all the main purpose of essay writing in its curriculum was to increase the interest skill of how to write a subject in detail by the students. to make the students aware of the stories composed by 'gadya phulwari 'editor dr.shahabuddin Shaikh in addition to this detailed information about autobiography biography memories prohibition of novel story play in the history of Hindi literature will be made available to the students. apart from this the students will also be made aware about the words introduction devnagri along with this information Regarding format of invitation letter ,press release ,advertisement will also given. elements of poetry Acharya Devendra nath Sharma, Hindi autobiography sahit Vishva Bandhu are useful booksin this semester.

Program Outcome (Science Streams):

The Bachelor of Science requires three years of full time study consisting of six semesters. The College offers 4 science subjects: Chemistry, Physics, Mathematics and Computer Science in B.Sc.

The college also offers B.Sc. Agriculture to the students that requires four years of full time study consisting of 8 semesters.

These courses introduce a wide range of topics to students, develop reasoning through unfamiliar problems through critical and analytical thinking and to find a systematic approach in analysing solving problems through teamwork with importance to safe laboratory practice. The students taking admission to these programs of B.Sc. are expected to get equipped with the ability of explaining the basic scientific principles and methods, inculcating scientific thinking and awareness among the student thereby creating in them an ability to handle the unexpected situations of life in a better way.

Program Specific Outcomes (Physics):

A student, who has taken admission in program of B.Sc. with Physics as a subject of study is expected to achieve following outcomes:

1. Identifying and describing physical systems with their professional knowledge.

2. Developing their scientific attitude, ability and techniques to tackle problems, either theoretical or experimental in nature.

3. Knowledge of general physics like sound, wave, friction, forces and laws of motion and use of mathematics.

4. Information of electrical current, circuits, construction and their use.

5. Learning about concepts of nuclear physics and nuclear energies and importance of their use for mankind.

6. Knowing about the light and its importance in life, its characteristics, properties and use in various instruments.

Course Outcomes (Physics)

Mechanics	Fixing units, tabulation of observations, analysis of data. Understand and apply conservation principles to verbally and mathematically Hands on experience of different equipments.
Vibration, Waves and Electromagnetic Theory	Develop a conceptual and quantitative understanding of oscillations and simple harmonic motion and damped and forced oscillations. Develop and apply a conceptual and quantitative understanding of electromagnetic wave equations.
Electricity and Magnetism	Apply problem solving strategies to problems of electricity and magnetism. Explain and differentiate the vector and scalar formalisms of electrostatics Describe how magnetism is produced and list examples where its effects are observed.
Statistical Physics and Thermodynamics	Understand and apply basic thermodynamic principles to verbally and mathematically to explain various physical situations involving energy transfer. Display critical thinking skills in applying physical knowledge in the experimental process. Develop the ability to collaborate with peers in lab atmosphere.
Optics and LASER	Understand and apply physical principles and laws that describe phenomena related to optics. Demonstrate the ability to measure, record, analyse and interpret in laboratory settings in order to verify physical principles. Explain working principle of LASERs

Quantum Mechanics	Explain fundamentals of quantum mechanics and apply to one dimensional motion of particles. Conceptual knowledge in quantum mechanics that will serve as basis for further study of quantum mechanics. Apply techniques such as Fourier Methods for selected problems of quantum mechanics
Condensed Matter Physics	Classify solids on the basis of band theory and to calculate conductivity of semiconductors. To analyse the structural properties of elemental solids
Electronics and Solid State Devices	Understand the working knowledge of electronics devices and their use in practical modern day technology. To test the basic electronic circuits independently
Nuclear Physics	Learn about the concept of Radioactivity shown by unstable nuclei. Calculate Q-value of nuclear reactions and describe particle detectors and accelerators

Program Specific Outcomes (Chemistry):

A student, who has taken admission in program of B.Sc. with Chemistry as a subject of study is expected to achieve following outcomes:

1. Proficiency in Chemistry concepts.

2. Ability to apply Chemistry knowledge to analyze Chemical phenomenon.

3. Laboratory skills to inculcate experimentation.

4. General competence and analytical skills on advanced level.

5. Use of Chemistry for ethical problems.

6. Prepare students as man force for industry.

Course Outcomes

On completion of the course, students know the scope and importance of the discipline and its objectives

Paper-I (Sem-I)	Inorganic chemistry-A	Principles of structure, bonding, and chemical reactivity with application to compounds of the main group; bonding fundamentals of ionic and covalent compounds, including electronegativities, bond distances and bond energies using MO diagrams
Paper-II (Sem-I)	Organic Chemistry-A	Basic concepts of bonding & mechanism of Organic Reaction; Stereochemistry of Organic Compounds that gives better understanding of organic reactions, Preparation and properties of Alkanes.
Paper-III (Sem-I)	Physical Chemistry-A	Basic concepts and methods of physical chemistry; concept of Ideal and non-ideal behaviour of gases, Maxwell's distribution, joule Thomson effect and chemical kinetics.
Paper-IV (Sem-I)	Laboratory Practical	Experimental exposure of how the solutions are prepared and to calculate variables like normality, strength and purity etc.; various parameters like viscosity and surface tension of solutions are calculated with the help of instruments.
Paper V (Sem-II)	Inorganic chemistry-B	Concept of Close packing and lattice defects, understand the importance of Valence bond theory, comparative study of p-block elements.
Paper VI (Sem-II)	Organic Chemistry-B	Basic concepts of some of the important class of hydrocarbons ranging from Alkenes chemistry to Arenes chemistry.
Paper VII (Sem-II)	Physical Chemistry-B	Make the concepts & methods of physical chemistry clear and interesting; study thermodynamic process and concept of heat and work
Paper VIII (Sem-II)	Laboratory Practical	Experimental skills to be strengthened relevant to composition of salts or mixtures with the

		help of chemical reactions are examined to give a real idea of the theoretical chemistry.
Paper IX (Sem-III)	Inorganic chemistry-A	Clarity about the d-block elements and complex compounds
Paper X (Sem-III)	Organic Chemistry-A	Training on mechanistic details of Organic reactions of different classes of Organic Compounds during their preparation & Chemical reactions;
Paper XI (Sem-III)	Physical Chemistry-A	At the end of the course students will be able to analyze and evaluate various thermodynamics cycles for energy, Clarity about chemical equilibrium and liquid state
Paper XII (Sem-III)	Laboratory Practical	Calculation of heat of neutralization and estimation of hardness of water
Paper XIII (Sem-IV)	Inorganic chemistry-B	Understanding the general characteristics of the f- block elements, to learn the concepts of acids and bases and to study the reactions in non-aqueous media
Paper XIV (Sem-IV)	Organic Chemistry-B	Indepth knowledge about the basic organic chemistry including various named reactions and their mechanisms; phenomenon and mechanistic aspects of the their methods of formation and chemical reactions
Paper XV (Sem-IV)	Physical Chemistry-B	At the end of the course students will be able to understand phase equilibria and electrochemistry.
Paper XVI (Sem-IV)	Laboratory Practical	Experiments to predict the outcome and mechanism of some simple organic reactions, using a basic understanding of the relative reactivity of functional groups
Paper XVII (Sem-V)	Inorganic chemistry-A	Focus on transition metal group chemistry, different types of bonding involved and the theories explaining the nature of bonding in these transition metal complexes
Paper XVIII (Sem-V)	Organic Chemistry-A	Learning the data interpretation for the structure determination of organic compounds using UV-vis, FTIR, NMR spectroscopy along with the basics of spectroscopy; elucidate the structure of a compound prepared in lab on the basis of spectral data.
Paper XIX (Sem-V)	Physical Chemistry-A	Using the principles of quantum theory to measure time; monitor the specific radiation frequency needed to make electrons jump between energy levels.
Paper XX (Sem-V)	Laboratory Practical	Learning the synthesis of various inorganic metal ion complexes; application of conductometric measurements,
Paper XXI (Sem-VI)	Inorganic chemistry-B	Understanding the classification of inorganic compounds and the electronic spectra and magnetic properties of inorganic compounds
Paper XXII (Sem-VI)	Organic Chemistry-B	Use of organic chemistry with metals in organometallic compounds, organic polymers, basic amino acids etc.

Paper XXIII (Sem-VI)	Physical Chemistry-B	At the end of the course students will be able to understand solid state and spectroscopy
Paper XXIV (Sem-VI)	Laboratory Practical	Experimental learning of various preparations based on different organic reaction like electrophillic substitution, chromatographic separations, etc.

Program Specific Outcomes (Mathematics):

A student, who has taken admission in program of B.Sc. with Mathematics as a subject of study is expected to achieve following outcomes:

1. Apply critical thinking skills to solve applied problems.

2. Use knowledge skills necessary for immediate employment or acceptance into a graduate program.

3. Maintain a core of mathematical and technical knowledge that is adoptable to changing technologies and provides a solid foundation for future learning.

4. Apply mathematical concepts and principles to perform computation.

5. Create use and analyze graphical representation of mathematical relationships

Course Outcomes

On completion of the course, students know the scope and importance of the discipline and its objectives

Paper-I	Plane Geometry	• Transform the axis (shifting of origin and rotation of axis) in two dimensions. • Find joint equation of pair of straight line and angle between them and joint equation of angle bisector. • Understand the concepts of circle and co-axial family of circles. • Learn the concepts of parabola like its tangent, pole, polar and equations of chord of contact etc. • Identify the curves represented by second degree equation. • Understand the concepts of ellipse, hyperbola and rectangular hyperbola.
Paper – II	Calculus – I	• learn about the concept of inequalities. • get familiar with the concept of limits & continuity. • know about indeterminate form. • find nth order derivative of product of two function using Leibniz's theorem. • learn Rolle's theorem, Lagrange's Mean Value theorem, Cauchy's theorem.
Paper – III	Trigonometry and Matrices	• compute powers of complex numbers by using De Moivre`s theorem. • learn primitive nth root of unity. • understand exponential, logarithmic circular and hyperbolic functions of a complex variable. • find the sum of series in AP, GP, binomial series, exponential series with the expansion of sin x , cos x, sinh x or cosh x, logarithmic and Gregory`s series. • learn hermitian and skew hermitian matrices. • find rank of the Matrix.

		• recognize consistent and inconsistent system of linear equation by the row echelon form of the augmented matrix using rank. • learn the characteristic equation, eigen values and corresponding eigen vectors of a given matrix. • learn diagonalization of a matrix. • learn Cayley Hamilton theorem and its use in finding inverse of matrix.
Paper-I	Solid Geometry	• transform the axis (shifting of origin and rotation of axis) in three dimensions. • understand the concepts of sphere and co-axial family of spheres. • express cylinder as a surface generated by a line moving parallel to a fixed line and through a fixed curve. • learn about different kind of cylinders such as right circular, elliptic, parabolic and hyperbolic cylinders in standard form. • express cone as a surface generated by a line passing through a fixed curve and a fixed point outside the plane of the curve. • learn about different kind of cones such as right circular, elliptic and enveloping cones. • understand the concepts of ellipsoid, hyperboloid and paraboloid. • identify the curves represented by second degree equation in three variables.
Paper – II	Calculus – II	• find nature of curve & position of double point with the concept of concavity & convexity & multiple point. • get familiar with Rectangular &oblique asymptotes. • get knowledge of different types of curve with curve tracing & to get familiar with curvature • get knowledge of integration of hyperbolic function & integration with numerical techniques. • find length of curve using rectification, area under the curve using quadrature & volume of solids of revolution. • get knowledge about the concept of summation series. • find solution of integral problem by reduction formulae.
Paper – III	Theory of Eqaution	• solve polynomials and finding g.c.d. of the polynomials. • understand Euclid's algorithm, synthetic division roots and their multiplicity. • find the relation between roots and coefficient of an equation. • transform an equation into another equation. • solve cubic equations by Cardan`s method. • solve biquadratic equations using Descartes's and Ferrari method.

		• learn Descartes's rule of signs. • understand Newton`s method to approximate the real root.
Paper-I	Advance Calculus-I	• understand the concept of partial differentiation. • interchange the order of differentiation with the help of Schwarz's theorem and Young's theorem. • solve Jacobian of n-functions, Jacobian of function of 'n' variables, Jacobian of composite functions and functional dependence. • find the maxima and minima for the functions of two and three variables. • understand the concept of envelopes and evolutes. • compute vector differentiation, gradient, divergence and curl with their properties and applications.
Paper – II	Differential Equations-I	• solve exact differential equation. • learn first order and higher degree differential equations solvable for x , y , p and Clairaut's form. • understand singular solution as an envelope of general solution. • geometrical meaning of a differential equation and orthogonal trajectories. • solve linear differential equations with constant coefficients and variable coefficients. • solve linear differential equations of second order by changing the dependent variable/ the independent variable. • solve linear differential equations of second order by methods of variation of parameters and reduction of order. • solve simultaneous differential equations.
Paper – III	Statics	• learn about composition and resolution of concurrent forces. • learn equilibrium conditions for coplanar concurrent forces. • learn about like and unlike parallel forces. • reduce a system of coplanar forces to a force and a couple. • learn equilibrium conditions for any number of coplanar non-concurrent forces. • understand the laws of friction and equilibrium of a particle on a rough plane.
Paper-I	Advance Calculus-II	• understand the concept of sequences and their convergence & divergence, subsequence, Cauchy sequence. • understand the convergence of sequence through Cauchy's first and second theorem on limits, Cauchy-Stolze theorem, Cesaro's theorem.

		• interpret the concept of a series as the sum of a sequence, and use the sequence of partial sums to determine convergence of a series. • decide whether an infinite geometric series and alternating series converge. • use various convergence tests (geometric series test, divergence test, integral test, comparison tests, alternating series tests, ratio test, and root test) to determine convergence or divergence of series • understand the concept of conditionally convergent series and rearrangement of terms.
Paper – II	Differential Equations-II	• find solution of differential equations in Series. • understand Bessel's function and its properties. • understand Legendre's function and its properties. • solve Partial Differential Equations of first order. • learn Laplace Transforms, Inverse Laplace Transforms and Convolution Theorem. • apply Laplace Transforms to solve Integral and Differential Equations.
Paper – III	Dynamics	• Discuss the motion of the particles under constant and variable acceleration • understand the laws of motion; concept of SHM in a straight line while discussing the periodic motion; curvilinear motion of a particle in a plane • Problems of projectile and motion in a circle; concepts related to work, power and energy; relative motion and velocity of two particles; concepts of linear and angular momentum and impulse of constant and variable forces
Paper-I	Analysis-I	• Identify sets as countable or uncountable; construct a definite integral as the limit of a Riemann sum • Compute definite integrals with the help of fundamental theorem of integral calculus and mean value theorems of integral calculus; beta & gamma functions • Interpret the absolute and conditional convergence of improper integrals; concept of Frullani's integral and integral as a function of parameter
Paper – II	Modern Algebra	• Perform basic computations in group and ring theory; different types of subgroups such as normal subgroups, cyclic subgroups and understand the structure and characteristics of these subgroups • Mathematical concepts studied in abstract algebra – permutation groups, factor groups and abelian groups; homomorphism of groups and rings • Analyze examples of subrings, ideals and quotient rings; prime ideal, maximal ideal and principal ideal

Paper – III	Probability Theory	• Understanding of laws of probability; key concepts of probability theory including Random variables, Probability Density Function and Distribution Functions; apply methods from calculus to derive Mean and Variance for different probability distributions • Methods to find Moment Generating Function, Skewness and Kurtosis; understand the concept of Bivariate Probability Distributions and applications to solve problems
Paper – I	Analysis — II	• Compute double integrals over a rectangle and bounded non rectangular regions; calculate double integrals by using polar co-ordinates; use the statement of the change of variable theorem for double integrals and illustrate its geometric meaning • Compute triple integrals in rectangular, cylindrical and spherical coordinates; find line, surface and volume integration of vector functions with the help of Gauss divergence theorem, Stokes' theorem and Green's theorem; interpret the concept of pointwise and uniform convergence of sequence and series of functions • Perform Weierstrass M-test, Abel's and Dirichlet's test for uniform convergence; find the interval and radius of convergence of power series; construct fourier series for piecewise monotonic function and odd & even functions.
Paper – II	Abstract Algebra	• Learning vector space, subspace, their basis & dimension; linear transformation, rank & nullity of a linear transformation and algebra of linear transformation • Finding matrix corresponding to linear transformation; eigen values & eigen vectors of matrix; knowledge about Cayley-Hamilton theorem and its applications
Paper – III	Numerical Analysis	• Solving Analytic problems using numerical approximation • Derive numerical methods for Interpolation, Differentiation, Integration, Ordinary Differential Equations and Matrices; analyses the accuracy of the methods and compare the numerical results with analytic solutions • Solving Transcendental Equations with numerical methods and investigate the convergence of various methods.

Program Specific Outcomes (Computer Science):

A student, who has taken admission in program of B.Sc. with Computer Science as a subject of study is expected to achieve following outcomes:

1.The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, application program, database, graphics and networking for efficient design of computer-based systems of varying complexity.

2. Enable the student to get sufficient knowledge on various system resources.

3. To inculcate knowledge on Graphics & Multimedia concepts.

4. To inculcate knowledge on Networking concepts and technologies like wireless, broadband and Bluetooth.

5. On successful completion of this subject the students should have proficiency in E-Commerce , E-Market , EDI, Business Strategies etc.

6. Students will develop professional skills that prepare them for immediate employment and for life-long learning in advanced areas of computer science and related fields.

Course Outcomes

Course : CS01 Theory-A Computer Fundamental At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Computer Appreciation
CO-2	Explain Computer Organization
CO-3	Work with Input & Output Devices
Unit-II	
CO-4	Understand Computer Memory
CO-5	Understand Main Memory
CO-6	Work with Secondary Storage Devices
Unit-III	
CO-7	Classify Types of Software
CO-8	Understand Programming Languages
CO-9	Explain Range of Applications
Unit-IV	
CO-10	Understand Operating System
CO-11	Explain Computer & Communication
Course: CS02 Theory-B PC Software At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Concept of Files & Directories
CO-2	Work efficiently with DOS Commands
Unit-II	
CO-3	Understand Graphical User Interface
CO-4	Work with MS Windows
Unit-III	
CO-5	Understand Word Processing –MS Word
CO-6	Explain Formatting
CO-7	Work with Mail Merge

Unit-IV	
CO-8	Understand Spread Sheet- MS Excel
CO-9	Explain Charts & Functions
CO-10	Understand MS PowerPoint
CO-11	Understand Animation & Transaction
Course : CS03 Theory-A Operating System Concepts At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Operating System
CO-2	Classify Types of OS
CO-3	Understand Structure of Operating System
Unit-II	
CO-4	Understand Process Management
CO-5	Explain CPU Scheduling
Unit-III	
CO-7	Understand Deadlock
CO-8	Understand Deadlock Avoidance
Unit-IV	
CO-10	Work with Memory Management
CO-11	Introduction to Paging
Course: CS04 Theory-B C Programming At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Programming Process
CO-2	Explain Algorithm & Flowchart
CO-3	Understand Fundamental of C Language
Unit-II	
CO-4	Explain Operators & Expressions
CO-5	Explain Decision Control Structure
CO-6	Explain Loop Control Structure
CO-7	Explain Case Control Structure
Unit-III	
CO-8	Understand Functions
CO-9	Understand Arrays
Unit-IV	
CO-10	Understand String manipulation in C
CO-11	Work with Structure and union
Course : CS05 Theory-A Computer Organization At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Representation of Information
CO-2	Understand Error Detection & Correction Codes
Unit-II	
CO-3	Explain Basic Building Blocks
CO-4	Understand Microinstructions
Unit-III	
CO-5	Understand Microprocessor
CO-6	Explain Assembly Language
Unit-IV	
CO-7	Understand System Maintenance
CO-8	Work with Installing Software
CO-9	Understand Viruses
Course: CS06 Theory-B Object Oriented Programming using C++	

At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basic concepts of OOP
CO-2	Explain Structure of C++ program
CO-3	Understand Class & Object
Unit-II	
CO-4	Work with Array of Objects
CO-5	Work with Functions in C++
Unit-III	
CO-6	Explain Constructors & Destructors
CO-7	Explain Inheritance
Unit-IV	
CO-8	Explain Polymorphism
CO-9	Explain Virtual Function
Course : CS07 Theory-A Database Concepts At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basic Concepts of DBMS
CO-2	Explain Data Integration & Independence
Unit-II	
CO-3	Understand Relational Data Model
CO-4	Work with ER Model
Unit-III	
CO-5	Understand Relational Algebra
CO-6	Explain Relational calculus
Unit-IV	
CO-7	Understand Client Server Concepts
CO-8	Explain Normalization
Course: CS08 Theory-B data Structure At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basic Concepts
CO-2	Understand Array
CO-3	Understand Stacks
Unit-II	
CO-4	Explain Linked List
CO-5	Explain Queue
Unit-III	
CO-6	Explain Trees
CO-7	Explain Graphs
Unit-IV	
CO-8	Understand Searching
CO-9	Understand Sorting
Course : CS09 Theory-A Project Management At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Concept of Project Management
CO-2	Explain Establish the Project
Unit-II	
CO-3	Understand Organizing Human Resource
CO-4	Explain Organizing the Project
Unit-III	
CO-5	Explain Project Directions, Coordination and Control

CO-6	Understand Project Management Performance
Unit-IV	
CO-7	Understand Report Writing-I Characteristics
CO-8	Understand Report Writing-II Elements of Style
Course: CS10 Theory-B Relational Database Management System At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Interactive SQL
CO-2	Understand Data Constraints
CO-3	
Unit-II	
CO-4	Work with SQL Operators and Functions
CO-5	Understand Grouping data from Tables
Unit-III	
CO-6	Explain Indexes
CO-7	Explain Sequences
Unit-IV	
CO-8	Understand PL/SQL-I Conditional & Iterative Controls
CO-9	Understand PL/SQL-II Cursor, Function & Trigger
Course : CS11 Theory-A E-Commerce At the end of the course student should be able to:	
Unit-I	
CO-1	Understand E-Commerce
CO-2	Internet and www
Unit-II	
CO-3	Understand Website Designing and Hosting
CO-4	Understand Implementation & maintenance of E-Commerce
Unit-III	
CO-5	Explain Payment System
CO-6	Explain Marketing on Internet
Unit-IV	
CO-7	Understand Firewall
CO-8	Understand Network Security
Course: CS12 Theory-B Web Programming At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basics Terminology
CO-2	Work with HTML
Unit-II	
CO-3	Explain Linking Documents
CO-4	Understand DHTML
Unit-III	
CO-5	Understand Java Script
CO-6	Explain Object Model
Unit-IV	
CO-7	Introduction to PHP
CO-8	Understand PHP Functions

Programme Outcome: B.Sc Agriculture 4 year

1. To impart firsthand knowledge on agriculture and allied sciences
2. To impart in-depth practical knowledge in agriculture and allied sciences
3. To provide extensive knowledge on agri-allied sectors like livestock, Poultry
4. To disseminate different technologies through various extension activities
5. To identify and overcome the problems encountered in day-to-day agriculture
6. To provide knowledge on commercial agricultural production practices
7. To make students competitive in pursuing higher studies

Program Specific Outcomes (B.Sc. Agriculture):

A student, who has taken admission in program of B.Sc. Agriculture is expected to achieve following outcomes:

1. Facilitating detailed study of various agriculture forestry, Livestock and other allied branches required to raise the income of farmers.
2. Providing detailed knowledge of agriculture in India and Indian farmers income generating enterprises.
3. Knowledge dissemination regarding various technique of farming and farming system in Punjab.
4. Study of market and marketing of agricultural produce.
5. Detailed knowledge on the subject to improve the farmer's condition in Punjab by their contributions.
6. Detailed knowledge of modern cultivation practices, Soil, fertilizers, livestock's insect pest, economic associated with farming enterprises.
7. An understanding of and appreciation for the importance of the impact of globalization and diversity in modern agriculture organizations.
8. An ability to engage in critical thinking by analyzing situations and constructing and selecting viable solutions to solve problems.
9. Ability to recognize and examine the relationships between inputs and outputs in their agricultural field to make effective and profitable decisions.
10. Understanding of all aspects of agriculture combine and are used by scientists, marketers, and producers.

Course Outcomes

TITTLE OF COURSE	COURSE OUTCOMES
Punjabi/History & Culture of Punjab	CO.1. Access a rich and diverse cultural tradition developed over a long period of time. This tradition includes Poetry, Prose, traditional folk dance, philosophy, film, music and meditation. CO.2. Understand and appreciate the cultural tradition includes Poetry, prose, traditional folk dance, Philosophy, film, music and meditation. CO.3.Punjabi Course helps them understand society and make them aware of their rights and duties. CO.4. The Course enhances their critical thinking.

	CO.5. Apply Punjabi to work, further study, translator job and also so many opportunities. CO.6. Knowledge of modern standard Punjabi provides foundation for understanding the innumerable regional variants and various style of spoken Punjabi, which are found both within and outside the subcontinent. CO.7. Use Punjabi to communicate with others. CO.8. Understand their own culture through the study of other culture. CO.9. Express needs, desires, or emotions properly CO.10.Understand and appreciate the cultural contexts in which Punjabi is used.
English	CO1: Students will identify and explain their goals to the semester and also identify the needs of communication helps us meet .They will able to understand the common misconceptions about Communication and the reasons, people use language. CO.2. Students can differentiate the action, interaction and transaction models of Communication. They can define the process of both perception and listening .Students can recall the importance of listening effectively and can identify strategies for communicating the cultural Awareness. CO3: Students will able to introduce themselves to the class and begin getting to know one another and will apply communication strategies by preparing and participating in class Discussion.
Basic Mathematics-I (Elementary Algebra & Trigonometry)	CO1. Demonstrate competency in the areas that comprise the core of the mathematics major CO2. Demonstrate the ability to understand and write mathematical proofs CO3. Be able to use appropriate technologies to solve mathematical problems CO4. Be able to construct appropriate mathematical models to solve a variety of practical problems CO5. Obtain a full-time position in a related field or placement
Computer Applications	CO.1. Understand analogy of computer CO.2. Basic knowledge of MS Office CO.3. Some basic knowledge of Internet and WWW CO.4. Use of IT application and different IT tools in Agriculture CO.5.Use of Decision support systems, Agriculture Expert System and Soil Information Systems in Agriculture
General Botany	CO.1. The student will be able to read, understand, and critically interpret the primary biological Literature in his/her area of interest. CO.2. The student will be able to design, conduct, analyze, and communicate (in writing and Orally) biological research. CO.3. The student will recognize and be able to apply basic ethical principles to basic and applied biological/biomedical practice and will understand the role of biological/biomedical Science, scientists, and practitioners in society. CO.4. The student will be able to explain the process of organic evolution and its underlying principles and mechanisms.

	CO.5. The student will be able to explain the fundamental biological processes of metabolism, homeostasis, reproduction, development, and genetics, and the relationships between form and function of biological structures at the molecular, cellular, organismal, population, and ecosystem levels of the biological hierarchy.
Basic Economics	CO-1: Explain the broad feature of Indian financial institutions with instruments to control credit in the country. CO-2: Effectively narrate the kinds and components of money with its regulatory system .Beaware of the functions,objectives and limitations of commercial bank. CO-3: Identify the existence and development of non- banking financial institutions, know the important role of mutual fund.LIC investment companies etc. Utilize and effectively participate in the development process. CO-4: Understand the conditions of financial markets and its impact in the economy. CO-5: Understand the macroeconomics aspects of the economy as they affect the agricultural sector. CO-6: Apply economics principles to understand the conduct and performance of the agricultural industry.
Introductory Agro Climatology	CO.1: To understand roles of agrometeorology in agriculture and its relation to other areas of Agriculture to acquaint with recent developments in agrometeorology with historical development of climate change. CO.2: Agrometeorology or Agricultural meteorology studies meteorological and hydrological factors in relation to agriculture. CO.3: Agrometeorology studies the behavior of the weather elements that have direct relevance to agriculture and their effect on crop production. CO.4: Weather and climate are the factors determining the success or failure of agriculture. CO.5: To develop weather based agro advisories to sustain crop production utilizing various
Elements of Agronomy	CO 1 This is most important for understanding the basic principles and prentices of agronomy. CO 2 This is much useful for study seed, sowing methods, tillage and tilth, crops, weeds, Crop nutrition, and soil-plant water relationship and other things which are important in agriculture. CO 3 It suitable and closely related to soil science, seed technology, plant breeding, etc. CO 4 It directly provided to Acquire knowledge of the sowing method, irrigation method, weed controlling, and which one is best in different situations. CO 5 Learn the concepts of crop rotation and its principles, Growth, and development of crops, Plant ideotype, adaptation and distribution of crop.
Agricultural Journalism and language Culture	CO1 Students will analyze basic communication skills. CO2 Students will analyze intercultural communication skills. CO3 Students will analyze interpersonal communication skills. CO4 Students will analyze public speaking communication skills.
Landscaping and Floriculture	CO.1. To evaluate natural herbal products from an economic perspective. CO.2.To use medicinal and aromatic herbs sustainably.

	CO.3.To set up business related to medicinal, aromatic and landscaping. CO.4.To develop effective ideas related to collecting, processing and marketing herbal natural Sources.
Introduction to Soil Sciences	CO1: To provide knowledge about waste land and problematic soils in India and management of the soils. CO2: Knowledge of different reclamation and management practices for the development of the soils. CO3: To Understand different factors responsible for saline , sodic and acidic soils and their properties.
Basic Biochemistry	CO1. Role of cell organelles and their functions CO2. Functions of biomolecules and their utility in cell CO3. Identify the deficiency symptoms of biomolecules CO4. Synthesis pathways of biomolecules and regulations CO5. Identification of biomolecules in given sample
Fundamentals of Microbiology	CO 1 The students were able to understand the basic microbial structure and function; and could study the comparative characteristics of prokaryotes and eukaryotes. CO 2 Also, the students became acquainted with the various physical and chemical growth requirements of bacteria and fungi. CO 3 Imparted the knowledge about the production and use of beneficial microorganisms in agriculture and industries. CO 4 The students became aware of the significance of microorganisms in water and food.
General Zoology	1. The student will be able to read, understand, and critically interpret the primary biological Literature in his/her area of interest. 2. The student will be able to design, conduct, analyze, and communicate (in writing and Orally) biological research. 3. The student will recognize and be able to apply basic ethical principles to basic and applied biological/biomedical practice and will understand the role of biological/biomedical Science, scientists, and practitioners in society. 4. The student will be able to explain the process of organic evolution and its underlying principles and mechanisms. 5. The student will be able to explain the fundamental biological processes of metabolism, homeostasis, reproduction, development, and genetics, and the relationships between form and function of biological structures at the molecular, cellular, organism, population, and ecosystem levels of the biological hierarchy.
Basic Mathematics -2 (Analytical Geometry and Calculus)	CO1. Demonstrate competency in the areas that comprise the core of the mathematics major CO2. Demonstrate the ability to understand and write mathematical proofs. CO3. Be able to use appropriate technologies to solve mathematical problems. CO4. Be able to construct appropriate mathematical models to solve a variety of practical problems. CO5. Obtain a full-time position in a related field or placement.

Environment, Road Safety Education, Violence against Women & Children and Drug Abuse*	CO1: Appreciate concepts and methods from ecological and physical sciences and their Application in environmental problem solving. Interdisciplinary branches of environment and Their scopes. CO2: Concepts of natural resources, Food resources, mineral resources, Concept of non Conventional energy resources, types and various applications of renewable resources and current potentials of energy resources. CO3: Ecosystem Links between environmental components and their role and types of ecosystems. CO4: Types of biodiversity, their values, depletion and conservation methods. CO5: Basic Structure of atmosphere and their functions Current problems related issues context in solving environmental issues such as environmental health, food and agriculture, energy, waste and pollution, climate change, management, Basic knowledge about water Recourses, current problems related issues, water born diseases, technologies of water treatment. CO6:Composition of solid waste, sources of generation, collection and disposal methods of solid waste, recycling, reuse of wastes. CO7: Urban problems related to energy, Water conservation, rain water harvesting, watershed Management. Environmental ethics: Issues and possible solutions, climate change, global Warming, acid rain, ozone layer depletion. CO8: Public awareness. Human Population and the Environment: population growth, variation Among nations, population explosion, Family Welfare Programme. Environment and human health: Human Rights, Value Education, HIV/AIDS. Women and Child Welfare.Role of Information Technology in Environment and human health. CO9: Meaning and nature of natural disasters, their types and effects and management.
Punjabi/History & Culture of Punjab	**CO.1.** Access a rich and diverse cultural tradition developed over a long period of time. This tradition includes Poetry, Prose, traditional folk dance, philosophy, film, music and meditation. **CO.2.** Understand and appreciate the cultural tradition includes Poetry, prose, traditional folk dance, Philosophy, film, music and meditation. **CO.3**. Punjabi Course helps them understand society and make them aware of their rights and duties. **CO.4.** The Course enhances their critical thinking. **CO.5.** Apply Punjabi to work, further study, translator job and also so many opportunities. **CO.6.** Knowledge of modern standard Punjabi provides foundation for understanding the innumerable regional variants and various style of spoken Punjabi, which are found both within and outside the subcontinent. **CO.7.** Use Punjabi to communicate with others. **CO.8.** Understand their own culture through the study of other culture. **CO.9.** Express needs, desires, or emotions properly

	CO.10. Understand and appreciate the cultural contexts in which Punjabi is used.
Agronomy –I (Kharif Crops)	CO.1: In the course study the students will be able to know about origin, geographical distribution, and economic importance of Kharif crops CO2: In the course study the students will be able to know about Soil and climatic requirements, varieties, cultural practices and yield of Kharif crops. CO.3: Analysis ofcomparative benefits of the different kharif crops CO.4: Constraints in production of oilseeds and pulses maybe identified through course content. CO.5: Production technology of kharif cereals and millets fulfill the need of human consumption and milch cattle.
Elements of Genetics	CO-1: Comprehensive, detailed understanding of the chemical basis of heredity specially in crop plants to impove and develop the new varieties of plants. CO-2: Understanding of how genetic concepts affect broad societal issues including health and Disease, food and natural resources, environmental sustainability, etc. CO-3: The knowledge required to to design, execute, and analyze the results of genetic Experimentation in plant systems. CO-4: Insight into the mathematical, statistical, and computational basis of genetic analyses that Use genome-scale data sets in systems biology settings. CO-5: Understanding the role of genetic technologies in industries related to biotechnology, Pharmaceuticals, energy, and other fields.
Manures and Fertilizers	CO1: Knowledge of different manure and fertilizers used in different crops according to soil condition CO2: To understand essentiality of plant nutrients and mechanism of nutrient transport to plant and factor affecting nutrient availability.
Fundamental of Agricultural Economics (Farm Management)	CO-1: Identify elements of business success in agriculture and food-processing as well as Elements that determine economic role of agriculture in national economy. CO-2: Propose methods of micro- and macroeconomic decision making in agriculture in Different agro-ecological and agro-economic circumstances. CO-3: Describe and explain models of production, supply and demand of agricultural and food products on national and international markets CO-4 :Understand the concepts of consumer choice and how it affect the farm / ranch level Agriculture firm. CO-5: understand the macroeconomics aspects of the economy as they affect the agricultural Sector. CO-6: apply economics principles to understand the conduct and performance of the agricultural Industry.
Agricultural Microbiology	CO1 Student will understand the basic microbial structure, function and study the comparative

	Characteristics of prokaryotes and eukaryotes. CO2 To know the various Physical and Chemical growth requirements of bacteria CO3 Impart knowledge about production of beneficial bacteria.
Horticulture (Vegetable Growing)	CO1. - students will be able to identify plant vegetative structure CO2.- students will understands basic principles, processes and plant propagation methods. CO3. - Students will understand how to propagate plant, manage and harvest a variety of plant. CO4.-students will learn how horticulture relates to the economy and environments, both Currently and in the future.
Animal Husbandry	CO.1. Students will able to apply concepts of breeding, physiology, nutrition, herd-health, economics and management into practical and profitable animal production programs. CO.2. Students will understand the role of nutrition in animal production. CO.3.Students will be able to explain the mechanisms and role of reproductive physiology in livestock production. CO.4.Students will be able develop feeding systems for farm animal production and companion animals. CO.5. Students will be able to demonstrate critical thinking and problem solving skills as they apply scientific principles to a variety of animal production systems. CO.6. Students will understand how the application of modern animal production technologies and management practices impact their production facilities, their communities and the world
Agronomy –II(Rabi Crops)	CO.1: To know the Origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield of rabi crops . CO.2: Identify weeds in rabi season crops, Pulses-chickpea, lentil, peas; oilseeds-rapeseed, mustard and sunflower; sugar crops-sugarcane, Medicinal and aromatic crops-mentha, lemon grass and citronella, Forage crops-berseem, lucerne and oat. CO.3: Through proper knowledge of irrigation scheduling in rabi crops, additional area can be increased of low water requiring crops. CO.4: Students will be able to know about the economic importance of medicinal and Aromatic crops in present sphere. CO.5:It will be helpful to know about basic morphological characteristics of rabi crops.
Horticulture (Fruit Growing)	CO.1 -To know importance of different fruit crops and plantation crops. CO.2- Students will understand canopy architecture for higher productivity in mango and grapes. CO.3- Students will understand package of practices for the major crops like mango, banana, guava, lemon, pineapple, coffee, coconut and rubber. CO.4- To understanding the concept of high density planting in different fruit crops.
Agricultural Botany and Crop Physiology	CO-1: Role of crop physiology in crop health. CO-2: Identification of deficiency symptoms of nutrients. CO-3: To understand the metabolic and synthetic pathway of biomolecules. CO-4: To know the difference between C3, C4 and CAM plant. CO-5: Importance of growth Harmon in Agriculture.

Statistical Techniques in Agriculture	CO1. Acquaintance with some basic concepts in statistics. CO2. Making familiar with some elementary statistical methods of analysis of data viz. Measures of Central Tendency, Dispersion, Moments, Skewness, and Kurtosis and to interpret them. CO3. Analysis of data pertaining to attributes and to interpret the results.
Introductory Entomology	CO 1: To be able to identify morphological characteristics, feeding habit and habitat of agriculturally important insect-pest. CO 2: To be able to apply concepts and analytical approaches in evolutionary biology, genetics and other areas of insect biology of the student's choice. CO 3: To be able to categorize insects based on basic ecological, behavioural, morphological, physiological, or developmental attributes. CO 4: To be able to examine insects deeply within a biological level of analysis and make strategies for successful pest management strategy. CO 5: To be able to understand about different families and orders of class Insecta which cause economic losses for human beings.
Soil Physics & Conservation	CO1: To be able about physical and chemical properties of soil and their effect on plant's health. CO2: To aware the students about causes, effects and remedies to prevention and mitigation of soil pollution. CO3: Knowledge about soil forming rocks and minerals, their weathering and soil forming processes and climatic factors affect them.
Introductory Plant Breeding	CO-1: Establish the commercial plant breeding company to developed new superior crops varieties. CO-2: Develop the insect and disease resistant varieties for environment friendly management of disease and insect. CO-3: Serve the quality food in the market by developing high nutritive varieties. CO-4: Increase the farm yield to get higher income on farm by developing higher yield crop varieties. CO-5: start a consultant company to guide & supply the better varieties to the farmers.
Farm Forestry	CO.1. Students will understand recognize various harvesting, transportation, and processing systems used in the management of forest resources and production of forest products CO.2. Students will understand develop and evaluate management plans with multiple objectives and constraints. CO.3. Students will learn how to develop and apply silvicultural prescriptions appropriate to management objectives. CO.4. Students will understand analyze forest inventory information and project future forest, stand, and tree conditions.
Applied Plant Breeding & Biotechnology	CO.1. Role of cell organelles and their functions CO.2. Functions of biomolecules and their utility in cell CO.3. Identify the deficiency symptoms of biomolecules CO.4. Synthesis pathways of biomolecules and regulations

	CO5. Identification of biomolecules in given sample CO.6.Application of plant tissue culture in crop improvement CO.7. Tackled the problems in convention breeding CO.8. Plant tissue culture is a area of entrepreneurship
Rural Sociology and Rural Psychology	CO.1.Understand concept of rural sociology, its importance in agricultural extension, characteristics of Indian rural society . CO.2. Understand social groups, social stratification, culture, social values, social control and attitudes, leadership and training. CO.3. Understand concept of educational psychology, intelligence, personality, perceptions, emotions, frustration, motivation, teaching and learning CO.4. Acquaint with characteristics of rural society, village institutions and social organizations. Select lay leaders and train them.
Dairy and Poultry	CO-1: Develop and evaluate animal production and management systems by integrating knowledge of animal genetics, nutrition, reproduction, and other relevant disciplines and applying scientific and quantitative reasoning to solve real-world challenges. CO-2: Locate, critically evaluate, and apply information from scholarly animal science literature and other sources to expand personal understanding and knowledge of animal sciences, providing a foundation for lifelong learning. CO-3:Create and interpret graphs, tables and diagrams illustrating scientific data and concepts, and understand basic concepts relating to the design and analysis of research in the animal sciences. CO-4:Communicate effectively about animal sciences to a range of audiences, both orally and in writing, using appropriate traditional and emerging media. CO-5:Engage actively and effectively in discussion of complex issues relevant to the animal sciences by understanding and appreciating: **a.** the importance of animals to the health and well-being of society; **b**. economic, environmental, animal welfare, and societal impacts of animal production and management systems at the global and local level; **c.** varied ethical perspectives on animal practices; **d.** the role of science in informing debates. CO-6:Appreciate the breadth and depth of professional opportunities in animal sciences relating to:The keeping of animals for food and fiber production and other purposes (e.g., companionship, research and teaching, biotechnology, sports, species conservation);The application of scientific principles to animal breeding, reproduction, feeding, growth and development, health management, housing, handling, and end – product safety and quality.
Agricultural Engineering	CO1: Various sources of farm power and their uses CO2: about working of IC Engines and their uses in modern equipments CO3: about various parts of tractors and their mechanism CO4: the financial aspects of using farm power CO5: the various implements used in agriculture farm for various purposes
Introductory Seed Technology	CO-1: Start a seed production program for fill full the requirement of quality seed in market and increase the income. CO-2: Storage the pure variety seed to avoid the availability crises of pure variety seed due to adverse environmental conditions.

	CO-3:To supply the disease free seed in the market to get the environmentfriendly cultivation of crops. CO-4: To increase the farm income by producing high yielding disease free quality seed and decrease the cost of cultivation also. CO-5:Production of hybrid seed of different crops to increase the farm income.
Plant Pathology	CO1- Student will acquaint about concepts of plant pathogens, major disease causing organisms and their etiology CO2 - To provide specific knowledge about host pathogen interactions. CO3 -Recognition of plant disease is the first step in doing something about them. CO4 - To give specific knowledge about environment and disease development.
Crop Experimentation & Applied Statistics	CO.1. Identify situations where One way and Two way ANOVA is applicable and to interpret ANOVA table. CO.2. Use appropriate experimental designs to analyze experimental data. CO.3.Understand the notation and formulae concerning the use and construction of index numbers. CO.4. Understand time series data, its components and its applications to various fields. Fitting and plotting of growth curves, trend and also measurement of seasonal indices.
Applied Entomology	CO.1. Concepts of insect morphology their principles, utility and relevance. CO.2. Description of head- origin, structure and modification; types of mouthparts and antennae. CO.3. Description of Thorax- Areas and sutures. Wings: structure and modifications, wing coupling apparatus and mechanism of flight. Legs: structure and modifications. CO.4. Biology, adaptation, host seeking behavior of predatory and parasitic groups of insects. CO.5. Role of insect pathogenic nematodes, viruses, bacteria, fungi, protozoa etc., their mode of action. CO.4.Biological control of weeds using insects.
Introductory Food Technology	CO.1. Critically evaluates information on food science and nutrition issues appearing in the popular press. CO.2. Discuss the important pathogen and spoilage microorganism in foods. CO.3. Discuss basic principles and practices of cleaning and sanitation in food preparation operation. CO.4. Identity and explain nutrients in foods and the specific functions in maintaining health.
Economic Zoology	CO1. Understands concepts of fisheries, fishing tools and site selection. CO2. Understands about parasites and epidemiology of parasites in human and animals. CO3. Use of recombinant DNA technology in genetic manipulations and in a variety of industrial processes. CO4. Understanding of in vitro culturing of organisms and production of transgenic animals. CO5. Types of breeds in animal farming and poultry farming along with their management. CO6. Aqua culture systems, induced breeding techniques and post harvesting techniques
Agricultural Extension	CO.1. Education; Extension Programme planning Meaning, Process, Principles and Steps in Programme Development.

	CO.2. Extension systems in India: Extension efforts in Pre-independence era . CO.3. New trends in agriculture extension: privatization extension. CO.4.Monitoring and evaluation – concept and definition, monitoring, and evaluation of Extension programmes, Transfer of Technology- Concept and models
Project Planning, Evaluation and Implementation	CO.1.collecting, analyzing, and using information to answer questions about projects, policies and programs, particularly about their effectiveness and efficiency.' CO.2.Allocate resources. ' CO.3.Review / publicize plan CO.4.Execute lower levels of planning. ' CO.5.Execute higher levels of planning
Sericulture and Apiculture	CO 1: Students can adopt apiculture, sericulture and lac culture as an entrepreneur according to agro climatic zone. CO 2: To understand commercial methods of rearing, equipment, seasonal management, insect- pest and disease and important species for commercial use of honey bee, silkworm and lac insect. CO 3: Identification of different bio control agents (Predator, Parasite and Parasitoids) and their use for sustainable pest management. CO 4: Learn about mass multiplication technique of biological control agents and established a bio control lab in future as an entrepreneur.
Medicinal and Aromatic Plants	CO.1- To evaluate natural herbal products from an economic perspective. Co.2-To use medicinal and aromatic herbs sustainably. CO.3-To set up business related to medicinal, aromatic and landscaping. CO.4-To develop effective ideas related to collecting, processing and marketing herbal natural sources.
Crop Ecology and Farm Crop System	CO1 The student will be able to explain the major aspects of agricultural practices and traditions through time and throughout the world. CO2 The student will be able to explain in general the relationships among culture, economics, politics, science, and agricultural development. CO3 A solid understanding of the cross-cultural interactions and exchange that linked the world's people and facilitated agricultural development is also expected. CO4 The student will study and analyze the refereed-journal articles, texts, and practices that represent the perspectives of different societies and agricultural traditions. CO5 To show how agricultural scientists are attempting to minimize agricultural pollution and sustain food production adequate for the world's population.
Insect Pests of Field Crops	CO1: Familiarized with identification of different insect pest of field, horticulture, ornamentals, vegetables and stored grains at the field level. CO 2: Understand how insects affect animal and Plant health and agricultural production, and be able to safely manipulate populations of

	beneficial and destructive species in habitats and in production agro-ecosystems with minimal environmental impact. CO 3: To be able about the biology, diversity, distribution of insects, and their relationships to crop and the environment condition of a particular area. CO 4: To understand identification of nature of damage and symptoms caused by the pest so Suitable technique of pest management can be apply for effective control. CO 5: Management of crop pest through Integrated Pest Management approach without side effect on plant, animal and environment health.
Recent Trends in Agronomy	CO 1: To understand advanced concepts of crop growth and Productivity in relation to climate change. CO.2: To gain knowledge on bio-technology in agriculture, Eco-restoration and nano technology. CO 3: To acquire knowledge on modern concepts in tillage And farm mechanization. CO.4: To gain knowledge on ideal plant ideotypes and Yield maximization.
Recent Trends in Agriculture	CO.1. Ancient Agricultural Practices & Its relevant to modern agriculture practices. CO.2. Traditional Technical Knowledge. CO.3. Our Journey (Developments) in Agriculture and Vision for the Future.
Irrigation & Water Management	CO.1.Various components of hydrologic cycle that affect the movement of water in the earth. CO.2.Various Stream flow measurements technique CO.3.The concepts of movement of ground water beneath the earth. CO.4. the basic requirements of irrigation and various irrigation techniques, requirements of the crop. CO.5. Distribution systems for canal irrigation and the basics of design of unlined and lined irrigation canals design
Internship in Agricultural Related Ind./Vet. Hop./Village/Govt. Nurseries	CO.1. Students have to undergo internship in a recognized Govt. Nurseries for a period of one month in different aspects of Breeding, Vegetative propagation, tissue culturing, Larval Rearing, Feed Management, Seed Management and Equipment Handling. At the end of the internship, each student has to submit a comprehensive project report (not less than 40 pages, A4 size) and present the report with the aid of PPT to the corresponding teachers. The report should be attested by the organization. Student should also produce a certificate of Matches 1-14 15-29 30-34 35-44 45-50 Relationship Very poor Poor Moderate High Very high internship from the organization. All the above details should be submitted to the Department for evaluation.
Weed Control	CO.1. Students will be acquainted about why to undertake environmental weed control. CO.2.Students will be acquainted about different approaches of weed management. CO.3. Students will be acquainted about harmful and beneficial effects of weeds in Agriculture. CO.4. Students will be acquainted planning for weed management and weed management Processes.
Bio fertilizers	CO.1.To aquiant with the importance of bio-pesticides in present scenario. CO.2. To educate about concept and classification of bio-concepts.

	CO.3.Role of bio-fertilizers in quality parameters of various agricultural products and key role of Bio-fertilizer in maintain soil health.
Applied Plant Pathology	CO.1. Student will acquaint about concepts of plant pathogens, major disease causing organisms and their etiology CO.2. To provide specific knowledge about host pathogen interactions. CO.3.Recognition of plant disease is the first step in doing something about them. CO.4. To give specific knowledge about environment and disease development. .

Advance Diploma Course In Organic Farming-Course Outcomes

S.NO	SEMESTER	CODE	TITTLE OF COURSE	COURSE OUTCOMES
1	Semester I	OF1	Organic Farming-I	CO.1.Prepare students in the area and applications of CO.2. Organic farming in agriculture.
2	Semester II	OF2	Organic Farming-II	CO.1. Initiative from Government for organic produce.
3	Semester III	OF3	Organic Farming-III	CO.1. Role of NGOs in producing organic products.
4	Semester IV	OF4	Organic Farming-IV	CO.1. Selection of crops and varieties for organic produce CO.2 procedure to get certification of organic produce.

Certificate Course In Mushroom Cultivation-Course Outcomes

S.NO	SEMESTER	CODE	TITTLE OF COURSE	COURSE OUTCOMES
1	Semester I	GC-MC-01T	Mushroom Cultivation -I 06	CO.1. To Identify edible types of mushroom
2	Semester I	GC-MC-02T	Mushroom Cultivation -II 06	CO.1. Gain the knowledge of cultivation of different types of edible mushrooms and spawn production.
3	Semester I	GC-MC-03P	Practical and Project-I 06	CO.1. Manage the diseases and pests of mushrooms . CO.2. Learn a means of self-employment and Income Generation.

Program Outcomes (B.C.A.):

The Bachelor of Computer Application (BCA) requires three years of full time study consisting of six semesters. A degree in Bachelor of Computer Applications puts a good platform for fundamentals of Computer Applications. It is a stepping stone in student's professional career as it syncs the student with need of industry. This course introduces a wide range of topics to students, develop reasoning through unfamiliar problems through critical and analytical thinking and to find a systematic approach in analysing and solving problems through teamwork. The students taking admission to the program of B.C.A. are expected to get equipped with the ability of explaining the basic computer principles and methods, inculcating critical thinking and awareness among the student thereby creating in them an ability to handle the unexpected situations of life in a better way.

Program Specific Outcomes (B.C.A.):

1. All theoretical concepts are implemented in practical which make a student industry ready.
2. Content of the course prepare a student for self entrepreneurship.
3. The syllabi of the course is a good platform for higher level course in computer application.
4. The course is designed to support automation and digitization in all walks of life.
5. The course enables the students to keep pace with the fast changing world.
6. The course opens up vast horizons of contemporary knowledge and techniques.

Course Outcomes:

Course : BCA-16-103 Computer Fundamental and Computing Software At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Computer Appreciation
CO-2	Classify Computer Memory
CO-3	Understand Types of software
Unit-II	
CO-4	Understanding Operating System using DOS
CO-5	Understanding Graphical User Interface using Windows
Unit-III	
CO-6	Work efficiently with Word Processing Package MS Word
Unit-IV	
CO-7	Work efficiently with Spreadsheet Package MS Excel
CO-8	Work efficiently with Presentation Package MS PowerPoint
Course: BCA-16-104 Problem Solving Through C At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Programming Process
CO-2	Explain Fundamentals of C Language
CO-3	Classify Operators and Expressions
Unit-II	
CO-4	Understand Decision Control Structures
CO-5	Understand Loop Control Structures
CO-6	Understand Case Control Structure
CO-7	Explain Functions
Unit-III	
CO-8	Explain Array and Types of Arrays
CO-9	Understand Pointers
CO-10	Use of Dynamic Memory Allocation

Unit-IV	
CO-11	Understand String manipulation in C
CO-12	Differentiate Structures and Union
CO-13	Working with File handling in C
Course : BCA-16-202 Computer Organization At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Computer Organization
CO-2	Understand Sequential building blocks
CO-3	Use of Arithmetic
Unit-II	
CO-4	Explain Architecture of a Simple Processor
CO-5	Understand Interrupt
Unit-III	
CO-6	Classify Memory Organization
CO-7	Understand Assembly Language
Unit-IV	
CO-8	Explain System Maintenance
CO-9	Understand Viruses
Course: BCA-16-203 Fundamentals of Web Programming At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basic Terminology
CO-2	Work Efficiently with HTML
CO-3	Understand List & Tables
Unit-II	
CO-4	Explain Linking Documents
CO-5	Understand Frames
CO-6	Understand DHTML
CO-7	Work Efficiently with Forms
Unit-III	
CO-8	Explain Java Script
CO-9	Work Efficiently with Objects
CO-10	Understand Form validation
Unit-IV	
CO-11	Introduction to Dreamweaver
CO-12	Explain Web Hosting
Course : BCA-16-204 Object Oriented Programming using C++ At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Principles of Object Oriented Programming (OOP)
CO-2	Explain Structure of C++ Program and Classes and Objects
Unit-II	
CO-3	Understand Friend Function
CO-4	Classify Constructor
CO-5	Explain Operator Overloading and Type Conversion
Unit-III	
CO-6	Understand Inheritance
CO-7	Understand Polymorphism
Unit-IV	
CO-8	Explain Exception Handling
CO-9	Work efficiently with File Processing
Course : BCA-16-303 Information System Design and Implementation	

At the end of the course student should be able to:	
Unit-I	
CO-1	Understand System Concepts and Information System Environment
CO-2	Explain The System Development Life Cycle
CO-3	Explain The Role of System Analyst
Unit-II	
CO-4	Understand System Planning and Initial Investigation
CO-5	Explain Information Gathering
CO-6	Work efficiently with Tools of Structured Analysis
Unit-III	
CO-7	Understand Feasibility Study
CO-8	Explain System Design
CO-9	Understand System Testing and Quality Assurance
Unit-IV	
CO-10	Implementation and Software Maintenance
CO-11	Explain Hardware and Software Selection
Course: BCA-16-305 Data Structures At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basic Concepts of Data Structure
CO-2	Explain Arrays
CO-3	Explain Stacks
Unit-II	
CO-4	Understand Linked List
CO-5	Understand Queue
Unit-III	
CO-6	Work with Trees
CO-7	Work with Graphs
Unit-IV	
CO-8	Understand Searching Sorting
CO-9	Classify Sorting
Course : BCA-16-403 Software Project management At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Software Project Management
CO-2	Understand Process Groups
Unit-II	
CO-3	Explain Project Management Framework
CO-4	Explain Project Integration
Unit-III	
CO-5	Understand Scope Management
CO-6	Understand Software Management Discipline
Unit-IV	
CO-7	Work with Project Scheduling
CO-8	Explain Cost Management
Course: BCA-16-404 Operating System Concepts and Linux At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Operating System
CO-2	Explain Process Management
Unit-II	
CO-3	Understand Deadlocks
CO-4	Explain Memory Management

Unit-III	
CO-5	Introduction to Linux
CO-6	Understanding I/O and Redirection and Piping
CO-7	Using File System
Unit-IV	
CO-8	Understand Process Management
CO-9	Managing Printers
CO-10	Work with VI Editor
Course : BCA-16-405 Database Management System At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basic Concepts of Database
CO-2	Understand Database System Concepts and Architecture
CO-3	Explain Entity Relationship Model
Unit-II	
CO-4	Understand Relational data Model
CO-5	Understand Conventional Data Model
CO-6	Understand RDBMS
Unit-III	
CO-7	Understanding SQL-I Basic Commands
CO-8	Explain Functions
Unit-IV	
CO-9	Understanding SQL-II Joins
CO-10	Work with PL/SQL
CO-10	Explain Cursor Management
CO-11	Understand Triggers
CO-12	Understand Exception Handling
Course : BCA-16-501 Computer Networks At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Computer Network
CO-2	Explain Physical Layer
Unit-II	
CO-3	Understand Data Link Layer
CO-4	Understand Medium Access Sub-Layer
Unit-III	
CO-5	Explain Network Layer
CO-6	Explain Congestion Control
Unit-IV	
CO-7	Understand Application Layer
CO-8	Understand Network Security
Course: BCA-16-503 Java Programming At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Java and Internet
CO-2	Understand Fundamentals of java
CO-3	Work with Inheritance
Unit-II	
CO-4	Explain I/O Basics
CO-5	Explain Arrays and Strings
	Understand Packages
	Understand Inheritance

Unit-III	
CO-6	Understand Exception Handling
CO-7	Understand Multi-Threaded Programming
	Explain Applet Programming
Unit-IV	
CO-8	Using AWT Controls
CO-9	Working with Java Database Connectivity (JDBC)
Course : BCA-16-504 Web Application Development using PHP At the end of the course student should be able to:	
Unit-I	
CO-1	Introduction to Web Applications
CO-2	Understand PHP Basics
CO-3	Explain Control Structures
Unit-II	
CO-4	Understand Functions
CO-5	Understand String Handling
CO-6	Explain Arrays
Unit-III	
CO-7	Work with Forms
CO-8	Integrating PHP and Database
Unit-IV	
CO-9	Understand Maintaining User State
CO-10	Working with File System
Course : BCA-16-601 E-Commerce At the end of the course student should be able to:	
Unit-I	
CO-1	Overview of E-Commerce
CO-2	Electronic Data Interchange (EDI)
Unit-II	
CO-3	Understand Web based E-Commerce
CO-4	Understand Online Promotion tools & Techniques
Unit-III	
CO-5	Explain Electronic Payment Systems
CO-6	Explain Credit & Debit Cards
Unit-IV	
CO-7	Understand Mobile Commerce
CO-8	Understand Applications of E-Commerce & case Studies
Course: BCA-16-602 Application Development using VB.Net At the end of the course student should be able to:	
Unit-I	
CO-1	Overview of Visual Studio .NET IDE
CO-2	Work with Menu Bar
CO-3	Work with Toolbox
Unit-II	
CO-4	Understand Basics of VB.NET
CO-5	Explain Procedures
CO-6	Work with Arrays and Strings
CO-7	Explain Control Arrays
Unit-III	
CO-8	Writing ASP.NET Applications
CO-9	Understand Validation Controls
Unit-IV	
CO-10	Accessing data with ADO.NET

CO-11	Explain Grid View Control
Course : BCA-16-603 Computer Graphics and Multimedia Applications At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Computer Graphics
CO-2	Overview of Graphics Systems
Unit-II	
CO-3	Explain Auto CAD Features and Applications
CO-4	Understand Developing Computer Graphics using C
Unit-III	
CO-5	Understand Multimedia Applications
CO-6	Understand Multimedia Platforms
Unit-IV	
CO-7	Work with Images
CO-8	Work with Audio
CO-9	Work with Video
CO-10	Work with Storage for Multimedia
CO-11	Understand Photoshop
CO-12	Explain Macromedia Director

Programme Outcome B.Voc ((Hardware And Networking)

- Targeted approach towards Hardware and Networking.
- Students will be able to become Hardware Experts along with networking concepts.

Programme Specific Outcome

- It gives knowledge about fundamental and advance knowledge of computers.
- Provides knowledge to trouble shoot hardware and networks
- Equips the students with the basics of Operating system, routing, switching, network security.
- Ensures the students eligibility to work in networking jobs.

Course Outcomes:

Course : GEN-102 Fundamentals of Information Technology At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Introduction to Computers
CO-2	Classify Types of Computers
CO-3	Classification of Computers
Unit-II	
CO-4	Understand Computer Hardware
CO-5	Understand Computer Storage
Unit-III	
CO-6	Understand Software
CO-7	Understand Translators
Unit-IV	
CO-8	Explain Computer Network
CO-9	Understand Internet & www
Course: HWN-103 Computer hardware At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Introduction to computer Hardware
CO-2	Classify Types of UPS
Unit-II	
CO-3	Understand Various Components of PC
CO-4	Explain Types of RAM
Unit-III	
CO-5	Explain Types of Cables
CO-6	Explain Types of Drivers
Unit-IV	
CO-7	Understand Introduction to BIOS
CO-8	Work with Formatting Harddisk
Course : HWN-104 Network Fundamentals At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Network Concept
CO-2	Understand Network Topologies
CO-3	Understand Network Models
Unit-II	
CO-4	Understand Introduction to Network Standards
CO-5	Explain Guided Media
Unit-III	

CO-6	Understand Networking Protocols
CO-7	Understand IEEE Standards
Unit-IV	
CO-8	Explain IP Address
CO-9	Understand Network Interface Card
Course: HWN-105 Practical on Networking At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Networking Tools
CO-2	Understand Connectors
Unit-II	
CO-3	Explain Testing and Networking Tools
CO-4	Work with Application Tools
Unit-III	
CO-5	Explain Working of Cables
CO-6	Explain Patch Cards
Unit-IV	
CO-7	Understand Working of Hub and Switch
CO-8	Setting up of Network
Course : HWN-203 Personal Computing Software At the end of the course student should be able to:	
Unit-I	
CO-1	Understand DOS Commands
CO-2	Explain Batch Files
CO-3	Understand Graphical User Interface – Windows
Unit-II	
CO-4	Understand Word Processing Package MS Word
CO-5	Explain Formatting
CO-6	Work with Mail Merge
Unit-III	
CO-7	Understand Spreadsheet Package- MS Excel
CO-8	Working with Charts
	Understand Functions & Macros
Unit-IV	
CO-9	Understand Presentation Package – MS PowerPoint
CO-10	Explain Internet & WWW
Course: HWN-204 Computer Hardware and Trouble Shooting At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Trouble Shooting Basics
CO-2	Classify Types of Keyboard & Mouse
Unit-II	
CO-3	Understand Types of Monitors
CO-4	Explain Hard Disk Drive
	Work with Formatting Hard Disk
Unit-III	
CO-5	Understand Processor Basics
CO-6	Understand Printer handling
Unit-IV	
CO-7	Understand Mother Board
CO-8	Explain SMPS
Course : HWN-205 Practical on Networking-II At the end of the course student should be able to:	

Unit-I	
CO-1	Understand Patching of LAN Cable
CO-2	Understand Setting up of LAN
Unit-II	
CO-3	Understand Internet Connectivity
CO-4	Explain Configuration of switch
Unit-III	
CO-5	Understand Wi-Fi Connectivity
CO-6	Explain DNS & DHCP
Unit-IV	
CO-7	Understand Switching Connectivity
CO-8	Explain Admin Login & Password
Course : HWN-303 Windows Operating System At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Introduction to Operating System
CO-2	Understand Windows Operating System
Unit-II	
CO-4	Explain Folder & File Management
CO-5	Explain Backup & Restore Files
Unit-III	
CO-7	Understand Control Panel
CO-8	Understand Windows Accessories
Unit-IV	
CO-9	Understand System Properties
CO-10	Explain Maintaining Disk
Course: HWN-304 Routing & Switching At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Introduction to Router Introduction
CO-2	Explain Configuration of Routers
Unit-II	
CO-3	Understand Introduction to Routing
CO-4	Explain Dynamic Routing
Unit-III	
CO-5	Understand Introduction to Switch
CO-6	Understand Configuration of switch
Unit-IV	
CO-7	Understand Introduction to Switching
CO-8	Classify Types of VLAN
Course : HWN-305 Routing Configuration & Network Connectivity At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Functionality of Router and Switch
CO-2	Understand Router Configuration
Unit-II	
CO-3	Explain Configure status of a device interface
CO-4	Explain IP Routing Technologies
Unit-III	
CO-5	Understand Differentiate of Routing & routing Protocols
CO-6	Understand Configure and verify OSPF
Unit-IV	

CO-7	Understand Configure and verify inter VLAN routing
CO-8	Understand CISCO IOS Files & Images
Course : GC-402 Project Management At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Concept of Project
CO-2	Explain Project Life Cycle
Unit-II	
CO-4	Understand Generating and Screening Ideas
CO-5	Explain Feasibility Studies
Unit-III	
CO-7	Understand Project Appraisal Techniques
CO-8	Understand Project Risk and Evaluation Techniques
Unit-IV	
CO-9	Explain Project Organization and Control
CO-10	Work with Project Reporting
Course: HWN-403 Window Server Administration At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Network Operating System
CO-2	Understand Managing User Accounts
Unit-II	
CO-3	Installing and Configuring and Network Policy Server
CO-4	Explain Implementing VPN lab
Unit-III	
CO-5	Explain Microsoft Window Server
CO-6	Understand Implementing Dynamic Host Configuration Protocol
Unit-IV	
CO-7	Understand Window Security
CO-8	Work with Trouble Shooting tools

Program Outcomes (Commerce):

The Bachelor of Commerce requires three years of full time study consisting of six semesters. It endows students with the holistic and contemporary knowledge of Business & Commerce through a fair mix of theory & practical courses. The curriculum also focuses on imparting Life Skills and Ability Enhancement, developing socially responsible citizens capable of managing challenges in Business & Society. It aims to provide students with the knowledge, tools of analysis and skills to understand and participate in the modern business and economic world. The course develops in them the managerial, entrepreneurial skill along with human resources management and numerical ability. The course makes them well versed with business regularity framework.

Program Specific Outcomes (Commerce)

- Understanding of individual and company accounting system
- Understand the functions and operations of bank, technological development in
- Banking and insurance companies
- Adequate knowledge on income tax provision and implication
- Application of accounting in professional courses
- Acquiring human resources managerial skills, aptitude skills, interview skills and over all
- Personality skills to be corporate ready
- Take up entrepreneurship as a career, adequate knowledge on proposal writing,
- Procurement of financial assistance from MSMEs
- Effective communication skills

Course Outcome:

Course Title	Outcomes
History and Culture of Punjab	To introduce the students to the history of the Punjab region
Psychology For Managers	To provide broad understanding about basic concepts and techniques of human behaviour to the students
Business Economics-I	To study the basic concepts of microeconomics relevant for Business decision making and helping the students to understand the application of economic principles in business management
Principles Of Financial Acounting	To help students to acquire conceptual knowledge of financial accounting, Branch Accounting, Accounting and to impart skills for recording various kinds of business transactions
Commercial Law	To acquaint the students with general Commercial Laws, Indian Contract Act, Right to Information Act and Consumer Protection Act
Principles And Practices Of Management	To help the students in understanding the process of business management and its functions
History And Culture Of Punjab In The Colonial And Post Independence Times	To introduce the students to the history of Punjab region in modern times

E- Commerce	To provide fundamental knowledge to the students about E-Commerce so that the can better perform in any area of operation and can excel in the field of commerce with IT specialization.
Business Economics-II	To provide the knowledge of basic concepts of the distribution and modern tools of macro-economic analysis
Corporate Accounting	To provide knowledge about basic corporate accounting with the relevant accounting standards, Final accounts of Company, Accounts of Banking Companies and Accounts of Insurance Companies
Business Laws	To acquaint the students about Business Laws, Sale of Goods Act, Negotiable Instrument Act, 1881, Factories Act 1948 and The Industrial Dispute Act, 1947
Human Resource Management	To familiarize the students with the different aspects of managing human resource in the organization
Issues In Indian Commerce	To enable the students to acquire basic knowledge of different issues faced in progress and prospects of commerce in India
Cost Accounting	To acquire conceptual knowledge of cost accounting and elements of cost, cost sheets, operation costing and cost ledger accounting.
Company Law	To give an understanding of various provisions of Companies Act 2013.
Business Mathematics And Statistics	To help the students in understanding mathematical and statistical tools in business decisions.
Banking And Insurance	To acquaint the students with Indian Banking system, Reforms in Indian Banking, Emerging trends in Indian Banking and Insurance industry.
Goods And Service Tax	Understanding of Basics of GST, tax structure in India and IGST Act,2017
Security Analysis And Portfolio Management	A comprehensive knowledge about security analysis, investment analysis, technical analysis and portfolio management, portfolio performance evaluation and equipping for taking profitable investment decisions
Advanced Accounting	Knowledge about advanced accounting problems with the relevant Indian Accounting Standards, valuation of shares, valuation of Goodwill, Insurance Claims, Accounting for Hire Purchase and Instalment System, Investment Accounts and accounting for Amalgamation.
Auditing And Secretarial Practice	Understanding concepts and issues in Auditing, Vouching, Verification and Valuation of Assets & Liabilities, Company Auditor and Secretarial Practice
Cost Management	Acquainting students with the various methods of cost determination and tools and techniques of cost control
Marketing Management	Understanding the basic concepts, philosophies, process and techniques of marketing, Market Segmentation, Pricing, Distribution, Mnagement and Promotion Decision, Promotion tools and recent trends in online marketing.

Quantitative Techniques And Methods	Study of various quantitative techniques and methods used in managerial decisions
Income Tax Law	To impart basic knowledge of the provisions of Income tax laws in India.
Management Accounting	Basic information about concepts of Management Accounting relevant in Business and helping the students to understand the usage of Accounting in Financial Management
Production And Operation Management	To enable the students to understand the concepts of production and operations management of an industrial undertaking
Entrepreneurship And Small Business	To make the learners understand various issues involved in setting up a private enterprise and develop required entrepreneurial skills in economic development; motivate students to opt for entrepreneurship and self-employment as alternate career options
Financial Markets And Services	To familiarize the students with the traditional and modern financial services.
Direct Tax Laws	To impart basic knowledge of the provisions of Income tax laws in India
Financial Management	To familiarize the students with Principles and Practices of Financial Management
Issues In Financial Reporting	To provide knowledge to the students about developments in financial reporting, and understanding of reporting issues at the national and international level
Social And Business Ethics	To educate about adoption of Business Ethics by organizations to acheive corporate excellence
Operational Research	To understand the concepts and techniques of Operations Research for business decision making and to acquire required skills to solve various problems in OR
Sectoral Aspects of Indian Economy	This course will provide insight into the various sectoral aspects of Indian economy

Programme Outcome B.Voc (Banking And Financial Services)

- Targetted approach towards creating Banking and Financial Experts.
- Students well equipped to become entrepreneurs or business persons.

Programme Specific Outcome

This course covers the basics of banking like security analysis, derivative markets etc.

- It gives knowledge about financial management in banking and financial sector.
- Provides knowledge to students in dealing with variety of financial problems in any particular sector.
- Equips the students with the basics of accountancy, banking and financial sector.
- Ensures the students eligibility to work in banks and financial institutions with more skills and practical knowledge.

Course Outcome:

CODE	COURSE TITLE	COURSE OUTCOME
GEN 101	Communication Skills	• This course helps to develop communication skills, discover what business communication is all about. • It also helps to learn how to adapt the communication experiences in life and to business world
GEN 102	Fundamentals of Information & Technology	• Provides knowledge about basics of computer, it's types, computer hardware software. • And also gives knowledge about computer storage, computer networks, internet and www.
BFS 103	Retail Banking	• Knowledge about basics of banking like account opening, plastic money concepts etc. • Knowledge about retail banking strategies, analytics and techniques
BFS 104	Business Organisation and Management	• Knows about management in business organisation, various approaches, processes and functions related to it and how to do management • About development of management, its types and all elements.
BFS 105	Banking and Financial Services-I	• Knows about banking system and various financial services in India, its performance evaluation system and globalization of commercial banking. • Knowledge about RBI's various functions, credit control and monetary policy
GEN 201	Soft Skills and Personality Development	• This course helps to expose students to the concepts of human development. • It also helps in creating awareness of the latent resources and to maximize the same to enable students meet the challenges of modern world.
GEN 202	Micro Economics	• Knows about consumer behaviour, demand and supply analysis and elasticity of demand.

		• Knows about cost and revenue analysis, theories of distribution and various market structures.
BFS 203	Marketing of Services	• Knows about services, services marketing mix, various delivery and distribution strategies and consumer behaviour in marketing. • Knows about service quality improvement, service development and service marketing line etc.
BFS 204	Customer Relationship Management	• Knows about the course meaning, its marketing, process and customer retention strategies. • And also about customer support methodology, emerging trends in CRM and challenges involved.
BFS 205	Banking and Financial Services-II	• Knows about commercial banks, development banks and banking sector reforms in India. • And also more knowledge about money and capital market, e-banking and mobile banking.
SIT 201	Summer Training	• Gets the practical knowledge and skills of field officers, banking advisor and marketing of financial services in banks.
GEN 301	Value Education And Human Rights	• Tis course helps to impart basic human values to students through formal education. • It also contributes in making the students a good human being ,who are able to face life and make it meaningful.
GEN 302	Human Resource Management	• Knows about HRM, its functions, evolution planning and development. • And also more about job design, career planning and development and performance appraisal.
BFS 303	Corporate Accounting-I	• Knows about issue of shares, redemption of preference and redemption of debentures. • And also more about ratio analysis, various types of ratios and their computation.
BFS 304	Financial Markets-I	• Knows about financial systems, financial instruments, their development and leasing in India. • And also about mutual funds, their types and about the derivatives in India.
BFS 305	Banking and Financial Services-III	• Knows about negotiable instruments act, financial services and innovative financial instruments and their present scenario. • Knows about SBI with its origin, functions, cooperative sector and venture capital.
GEN 401	Environment Studies	• Knows about the basics of the natural environment to identify the sources of pollution and their related effects. • And to have awareness about conservation strategies and laws followed in India.
GEN 402	Insurance Laws And Practice	• Knows about the general principles and concepts of insurance, market players and about the life insurance. • And also about fire insurance, its policies and general insurance, its contract, structure and policies.

BFS 403	Corporate Accounting-II	• Knows about capital reduction, its methods and about the liquidation of companies. • And also about value added accounting and company's final account.
BFS 404	Financial Markets-II	• Knows about bank instruments like cheque and draft and credit rating and various credit rating agencies in India. • And also about plastic money ie. Debit/credit card and privatization of banks.
BFS 405	Banking and Financial Services-IV	• Knows about commercial banks and economic development and new issue market. • And also about secondary market, online trading in it and non-banking financial institutions.
SIT 401	Summer Training	• Gets the practical knowledge and skills of field officers, banking advisor and marketing of financial services in banks.
GEN 501	Critical Thinking and Elementary Statistics	• This course helps the students to provide them with the basics of statistics. • It also inculcates in them the habit of critical thinking using various tools like dispersion, index numbers etc.
GEN 502	Quantitative Methods & Business Research	• Knows about the research, its types and research proposal. • And also about operations research using graphic method, transportation and assignment problems and game theory.
BFS 503	Bank Credit Management	• Knows about the credit management, its techniques and structuring of a credit proposal. • And also about the forms of bank finance and methodology for different types of client/ product.
BFS 504	Investment Management	• Knows about savings and investments, investment avenues, fundamental analysis and technical analysis. • And also about security pricing, valuation of equity and bond valuation.
BFS 505	Banking and Financial Services-V	• Knows about e-banking, electronic funds transfer system and information technology. • And also about risk and security issues in e-banking, regulatory framework, information system security and disaster management in computer audit.
GEN 601	Entrepreneurship Development Programme	• This course aims training various target groups in entrepreneurial traits • And also makes them skilled with adequate information, motivation and guidance for setting up their own enterprises
GEN 602	Seminar /Project on Career Key Competency Module	• This practical course makes students more competent and skilled for joining any enterprise or setting up one of their own.
BFS 603	Financial Risk Management	• Knows about the risk management elements, tools like hedging, forwards, futures and swaps. • And also more about futures, options and swaps.

BFS 604	International Financial Management	• Knows about the course meaning, its theories, parity conditions in international finance and balance of payments. • And also about country risk analysis, measuring and managing transaction exposure and foreign exchange risk management.
BFS 605	Banking and Financial Service I	• Knows about marketing of bank and financial services, services marketing mix elements and strategies and pricing of financial products/services. • And also about distribution, distribution channels and promotion of financial services/ products.
SIT 601	Summer Training after exams	• Gets the practical knowledge and skills of Human Resource Manager, Risk and Operation Manager, Credit Manager, Investment Manager in banks
BFS 605	Banking and Financial Service I	• Knows about marketing of bank and financial services, services marketing mix elements and strategies and pricing of financial products/services. • And also about distribution, distribution channels and promotion of financial services/ products.
SIT 601	Summer Training after exams	• Gets the practical knowledge and skills of Human Resource Manager, Risk and Operation Manager, Credit Manager, Investment Manager in banks

P.G.

Programme Outcomes (M.A. HISTORY):

M.A. (History) requires two years of full time study consisting of four semesters. It enables the student to comprehend the connectivity between the past and the present and stress the need for understanding the past to comprehend the present. It stresses the need to understand the significance of Individuals in promotion of an effective state and society. It enables the student to have a clear understanding of Current Affairs with a special reference to international disputes and their impact on the chaotic world and promotes the skills required like critical thinking and objective understanding for becoming a scientific historian. The student gains an effective comprehension of the History of the World, Nation and the state in order to have a clear understanding regarding the Connectivity between different parts of the world.

Programme Specific Outcomes:

1. The ability to reflect deeply on historical knowledge and to demonstrate an awareness of current historical debates.
2. The ability to use a wide range of bibliographical tools to locate and critically evaluate appropriate sources and materials for the advanced study of history.
3. The ability to locate and critically evaluate archival, printed or electronic source-material for the investigation of specific historical questions.
4. The ability to formulate and sustain independent historical arguments, to provide appropriate evidence to support them, including quantitative and visual evidence, and to reference the sources of the evidence used.
5. The ability to respond constructively to debate and criticism.
6. A critical understanding of the significance of historiographical developments since the professionalization of the discipline and their relevance to a student's specialist area of study.
7. A comprehensive understanding of the epistemological and methodological distinctiveness of history as a discipline, and an ability to reflect on the significance of the influence of other disciplines on the development of historical method.
8. A conceptual understanding that enables the student to evaluate critically scholarly writing in history and to undertake informed source-criticism.
9. The ability to engage in independent and extended research within a defined area of historical enquiry

Course outcomes

Course Title	Outcomes
HIS 111 The Punjab (Mid Fiftheen to seventeen centuries)	This Paper is designed to familiarize students with important developments in Punjab history. It will help students to understand the importance of Punjab history.Student will learn about the origin of philosophy and Sikhism.
HIS 231 Ancient India: An Overview	This paper will help students to understand the importance of the political processes in ancient times.They will learn the difference between monarchies and republics as well as northern political system and southern political system.It helps them to understand the nature of sovereignty.
HIS 221 Medieval India: Political Process	The paper medieval India seeks to examine the major political developments from the thirteenth to seventeenth century.student

	will learn about the processes of State formation in the Delhi sultanate and Mughal Empire. They will also learn the changing composition of the ruling class as well as the response of the powerful local elements.
HIS 211 Modern India: Political Process	This paper consists the study of British colonialism in which India can be studied. It will help the student to understand the interpretation of different approaches and interpretation such as colonialist, nationalist, Marxist,subaltern and Gandhian. It will also enhance their knowledge about constitutional changes, Indian nationalism,emergence of Indian national Congress,revolt of 1857, peasant and tribal revolts etc.
HIS 125 Punjab In the18th Century (Compulsory)	This paper deals with the history of Punjab in the 18th century. This paper will help students to learn the independant rule of Banda bahadur, emergence of new power in the hills and plains,Sikhs as well as non- Sikh in terms of their political organisation, administrative arrangements, patterns of state patronage and main features of urban as well as agrarian economy.
HIS 712 (opt ll) Agrarian economy in medieval India)	This paper deals to help students to familiarise with the history of India ranging from thirteenth to seventeenth century with the control of agrarian economy. It will help them to understand the chronological phrases of Delhi sultanate and Mughal Empire with particular reference to the various classes of peasantry as well as the intermediaries.
HIS 812 (Opt l) USA (1820-1973)	The paper will enhance the knowledge of students about the emergence of USA as a world leader. throughout the course they learn about territories of America, economy,wars within the states and other countries of the world. It also helps to understand the overseas expansion,world wars, USA as a world power as well as social movements in USA.
HIS 844 (Opt ll) China & Japan (1840-1950)	The paper the history of china and Japan deals with the political, social and economic lifestyles of china and Japan. This paper will help student to understand the European interaction with China and Japan during the world wars. It will educates the students about the changes and development that take place in the far East countries.
HIS 123 Punjab in the Nineteeth Century (Compulsory)	Students will enable to learn about the formation of kingdom of Lahore,it's nature, political development. They will also learn the annexation of Punjab into British Empire, British agrarian policies and socio religious reform movements i.e. Arya samaj, Dev samaj, Muslim anjumans, Nirankari,Namdhari and Singh sabha
HIS 412 (Opt lV) Rise & grouth of colonialism in India	In this paper student will learn the introduction of colonialism,it's structure and stages. That will help them to enhance their knowledge about colonialism in India.
HIS 212 (Opt Vlll) National Movement in India (1858-1947)	This course aims at acquating students with emergence of Indian nationalism during 1858-1947. It helps the students how to define the growth of political consciousness in India after the revolt of 1857.it enable them to understand the basic concepts associated with the Indian nationalism eg formation of social,religious and political institutions. Students will be able to describe different phases of Congress and the mass movements

HIS 213 (Opt Vll)Constitutional Development in Modern India (1773-1947)	This paper will help students to learn about the constitutional development during 1773-1947. It enables them to understand various rules and acts introduced by British government in India eg government India act 1858,acts of 1909,1919,1935, various reform proposals and independence act and constitution of 1949.
HIS 126 Punjab in the twentieth Century (Compulsory)	This paper deals with the meaning scope and historical methods and analyses of historical sources, materials and its uses. It will help the students to understand different historical writings. It will enhance their knowledge about research area, representation in history and challenges of writing in history.
HIS 912 (Opt ll) History and Historical Method	This paper deals with the meaning,scope and historical methods and analyses of historical sources, materials and its uses. It will help the student to understand different historical writings,it will enhance their knowledge about research area, representation in history and challenges of writing in history.
HIS 428 (Opt lll) Religious development in Medieval India	In this paper student will learn the development in different religious systems during the medieval period of Indian history,change within shaivism, shaktism and vaishanism. They also learn Krishna bhakti and it's religious manifestation in Maharashtra, Bengal, Assam, Rajasthan and Gujarat and will be familiarized with the writings of Ravidas,Dadu and sikh movement from Guru Nanak to Guru Gobind Singh .
HIS 418 (Opt Vlll) Socio-Religious reform movements in modern India	This course will help students to learn the variety of socio-religious reform movement in response to colonial rule in the regional context. It will enable them to understand specific themes related to education, depressed classes, gender and identity are highlighted to study the conflicts and competition in the socio-religious reform movements.

Programme Outcomes M.A. (Punjabi):

M.A. (Punjabi) requires two years of full time study consisting of four semesters. It enables the student to comprehend Punjabi language and literature with an advanced level of proficiency. It connects the students to their cultural roots and they get a comprehensive idea of their rich cultural and folk heritage. The intricacies of the language and linguistics are also revealed. The programme initiates the ability of critical thinking and the students get to understand Punjabi language, literature, linguistics and culture in a better way.

Programme Specific Outcome:

1. Examine the relationship of literature with history, society, culture and human behaviour and the evolving cross-cultural concerns.
2. Inculcate skills of contextualizing and interpreting literary works and effectively communicating the same.
3. Develop skills of comprehending socio-psychological changes and portraying them creatively in any literary form.
4. Use research methods and tools for academic research and excellence.

5. Research theoretical concepts and literary theories/approaches with specification. Different school of literary approaches are taught so that our students can learn about learn about international phenomenon of criticism.

Course Outcomes:

1. The students acquire in depth knowledge of Punjabi language and literature.

2. The postgraduates will be acquainted with the philosophical, historical, folk and ideological tradition and thinking of their respective subjects.

3. The program also empowers the post-graduates to appear for various competitive examinations or choose the any post graduate or research programme of their choice.

4. The M. A. program enables the students to acquire the knowledge with human values framing the base to deal with various problems in life with courage and humanity.

5. The students will be ignited enough through the knowledge of the special PG programme to think and act over for the solution of various issues prevailed in the human life to make this world better than ever.

6. Through the PG programme the students will come know about research in their respective subject.

7. Students get knowledge of various research methods and can realize the importance of research to find solutions of a specific issue.

Programme Outcomes (PGDCA):

Post Graduate Diploma in Computer Application (PGDCA) requires one years of full time study consisting of two semesters. The Goal of Program is to prepare for all computer Knowledge and Languages in one year by analysing the system and maintain the relationship. Understanding application of Different software needed for rural areas development. To identify, software engineering, networking, hardware knowledge and to utilize the techniques, skills & modern programming tools, software development practice.

Programme Specific Outcomes:

1. Software engineering knowledge - apply knowledge of basic engineering concept for developing software with different from traditional software development concept.

2. Problem analysis – By using concept of entity relationship diagram and basic concept, feasibility study will be operational and technical feasible.

3. Design and development of system - by using concept of entity relationship diagram and basic concept of computer and developing software.

4. Modern tools uses - create, select and apply appropriate techniques resources like 4G,OOP.

5. Testing - After analysis and design of new system can perform testing of error for error free software.

6. Social responsibility - study will conducted which will concern with operation of system and effect of system on society which called as social feasibility.

7. Ethics - In this integrated one year course ethical principal and commits to professional ethics and responsibility and norm of software engineering practice.

8. Individual And teamwork - As Academic requirement they have to design team work and now some of them from team to distribute total system.

Course Outcome:

Course : PGD-1101 Computer Fundamentals At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Basics of Computers
CO-2	Explain Representation of information
Unit-II	
CO-3	Understand Disk Operating System
CO-4	Work with Windows
CO-5	Work with Linux
Unit-III	
CO-6	Understand Word Processing Software Basics
CO-7	Explain Editing Text
CO-8	Understand Formatting
CO-9	Working with Tables
CO-10	Understand Clipart
CO-11	Work with Mail Merge

Unit-IV	
CO-12	Understand Spreadsheet Software Overview
CO-13	Understand Editing Information
CO-14	Working with Functions
CO-15	Working with Charts
CO-16	Work efficiently with Presentation Software
Course: PGD-1102 Computer Programming Using C At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Problem Solving
CO-2	Explain C language Fundamentals
CO-3	Understand Header Files
CO-4	Understand Storage Classes & Preprocessors
Unit-II	
CO-5	Understand Functions
CO-6	Understand Arrays
CO-7	Understand Pointers
Unit-III	
CO-8	Explain Strings
CO-9	Explain Structure
CO-10	Explain Union
Unit-IV	
CO-11	Understand Console Input /Output
CO-12	Understand File Input /Output
Course : PGD-1103 Data Base Management System At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Data Base Concepts
CO-2	Understand Data Base Design
Unit-II	
CO-3	Explain Relational Model
CO-4	Explain Database Security
Unit-III	
CO-5	Understanding SQL-I
CO-6	Work with Functions
Unit-IV	
CO-7	Understanding SQL-II
CO-8	Work with SET Operators
Course: PGD-1104 Data Communications and Networks At the end of the course student should be able to:	
Unit-I	
CO-1	Introductions to Computer Networks and Applications
CO-2	Understand Network Connecting Devices
Unit-II	
CO-4	Introduction to Data Communication
CO-5	Explain Switching
Unit-III	
CO-8	Explain Data Link Layer
CO-9	Explain Data Link Protocols
Unit-IV	
CO-10	Understand Network Layer
CO-11	Understand Internetworking
Course : PGD-2101 Object Oriented Concepts using JAVA	

At the end of the course student should be able to:	
Unit-I	
CO-1	Understand OOPs concepts
CO-2	Understand Object Oriented Programming with JAVA
Unit-II	
CO-3	Explain Inheritance
CO-4	Explain Visibility Controls
CO-5	Work with Arrays
Unit-III	
CO-6	Work with Strings
CO-7	Work with Interface
CO-8	Understand Packages
CO-9	Understand Multithreading
Unit-IV	
CO-10	Explain Error and exception Handling
CO-11	Work with Applet Programming
Course: PGD-2102 Web Technologies At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Introduction to HTML & DHTML
CO-2	Explain Introduction to CSS
Unit-II	
CO-3	Understand Fundamentals of Java Script
CO-4	Explain Javascript Objects
Unit-III	
CO-5	Understand Introduction to PHP
CO-6	Understand Control Structure
CO-7	Understand Functions
CO-8	Work with Strings
Unit-IV	
CO-9	Work with Arrays
CO-10	Working with Forms
CO-11	Working with files and Directories
Course : PGD 2103 Software Engineering At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Software Engineering Fundamentals
CO-2	Understand Software Process Models
Unit-II	
CO-3	Explain Software Project Management
CO-4	Explain Software Project Estimation and Risk Management
Unit-III	
CO-5	Explain Software Design
CO-6	Explain Structured Analysis Design Tools
Unit-IV	
CO-7	Understand Software Testing
CO-8	Understand Software Quality and Maintenance
Course: PGD-2104 Computer Based Accounting At the end of the course student should be able to:	
Unit-I	
CO-1	Understand Accounting
CO-2	Understand Final Accounts
Unit-II	

CO-3	Understand Introduction to Manufacturing Accounts
CO-4	Understand Introduction to Computerized Financial Accounting
Unit-III	
CO-5	Understand Introduction to Computerized Inventory Control
CO-6	Explain Methods of Stock Validation
Unit-IV	
CO-7	Explain Computerized Payroll & Invoicing Applications
CO-8	Use of Accounting Package Tally

Programme Outcomes (Post Graduate Diploma in Marketing Management):

PG Diploma in Marketing Management (PGDMM) trains a student in product development and design, brand and product management, marketing services, managing customer and business relationships, franchising. The course also introduces and equips a student with concepts of ever-evolving digital marketing. It involves marketing mainly on the internet, mobile phones, display advertising.

Programme Specific Outcomes:

1. Establish a professional presence online incorporating the key disciplines of social media, search engine optimization, analytics, online navigation and user experience in order to drive traffic to an organization's website.
2. Employ digital tools to analyze the effectiveness of a marketing campaign.
3. Formulate a marketing plan including marketing objectives, marketing mix, strategies, budgetary considerations and evaluation criteria.
4. Write a business plan for an entrepreneurial start-up venture.
5. Develop pricing strategies that take into account perceived value, competitive pressures and corporate objectives.
6. Develop strategies for the efficient distribution of products and services.
7. Apply the principles of business ethics and corporate social responsibility.
8. Determine strategies for developing new products and services that are consistent with evolving market needs.
9. Evaluate the viability of marketing a product or service in an international market or markets.
10. Evaluate results of marketing activities using criteria related to budgeted sales, costs and profits.

Course Outcome:

Course Title	Course Outcomes - On completion of the course, students will be gaining aconceptual clarity of the various courses studied
Managerial Economics	Know the concepts of micro–economic theory and their use in business decisionmaking; using various concepts to deal with business problems in a global economic environment
Quantitative Methods For Business	Know the important statistical techniques for managerial decision making and apply them to business and economic situations
Modern Accounting Theory & Reporting Practices	Knowledge of International financial reporting standards and practices and a clear conceptual understanding of the IFRS and possess sufficient knowledge expected out of an expert in view of the convergence of the Indian Accounting Standards with the IFRS
Organisation Theory And Behaviour	Theoretical understanding about the structure and behavior of organization as it develops over time and realizing the competitiveness for firms
Marketing Management	Knowledge of basic concepts and principles of marketing and developing ofconceptual and analytical skills to manage marketing operations of a business firm
Management InformationSystem	A comprehensive overview of Management information systems (MIS) andexploring technical, strategic and tactical issues related to MIS; basic concepts involved in analyzing and designing information systems
Workshop – IT	Use of IT technologies to solve business problems regarding various functional areasof business

Application s In Commerce	
Business Environment	Concepts of macro economics and the macro environment in which a business organization operates; understanding of macro-economic policies of the government and assessing their impact on business.
Research Methodology In Commerce	Knowledge about various stages of the research processes and their application in Commerce and Management education
Financial Management And Policy	Overview of basic and advanced analytical techniques and methods of financial management of business firms
Production And Materials Management	Knowledge regarding production and management techniques, process, tools, and the marketing functions, techniques and strategies
Operations Research	Undestanding the concepts and techniques of Operations Research for business decision making and acquire required skills
Business Policy & Strategic Management	Understanding of the basic inputs in making and implementing corporate strategic decisions
Business Performance Measurement	Familiarity towards the performance measurement techniques for business
Tax Planning And Management	Knowledge of latest provisions of the Indian Tax Laws and related judicial pronouncements pertaining to corporate enterprises and the various aspects of Corporate planning so as to derive maximum possible tax benefits admissible under the law
Strategic Cost Management	Understanding of concepts and various aspects of cost management from strategic perspective
International Accounting	Conceptual knowledge and understanding of international accounting issues and tackling issues in prevailing regulatory environments
Workshop On Financial Markets & Instruments	Overview of the financial system in India and functioning of various segments of the financial markets and the financial instruments traded in those markets
Project Planning And Control	Skills necessary to create, plan and control a new Enterprise.
Knowledge Management	Understand knowledge management in the changing scenario and its significance in framing the business strategy
Business Ethics And Corporate Governance	Insight into Business Ethics, complexity of ethical issues, and details of Internal Corporate Governance Mechanism
Advanced Corporate Accounting	Knowledge of advanced accounting in the field of corporate world as corporate accounting is becoming tougher with the pace of development in the emerging Scenario
Security Analysis And Portfolio Management	Understanding of various techniques of analysis used in investment decisions, portfolio analysis and efficient portfolio management
Advanced Auditing	In-depth knowledge of the auditing contemporary issues particularly related to the company audit

Programme Outcomes (Post Graduate Diploma in Applied Agriculture):

Post Graduate Diploma in Applied Agriculture (PGDAA) is an experiential learning based educational program that prepares students for productive careers in the diverse field of agriculture. It aims at preparing the students for productive careers in the dynamic global food and agricultural industry and become responsible leaders in the community. The program provides students with a broad understanding of the sustainable production, distribution, marketing and management of agricultural and environmental resources. The program emphasizes knowledge development in the geographical, physical, chemical, biological, technological and restorative principles and practices in agro ecosystems. The program encourages students to critically assess agricultural issues and trends; provides students with opportunities to systematically develop discipline appropriate communicative, analytical, quantitative, problem solving and critical thinking skills; and delivers a high quality academic experience that prepares students for emerging professional opportunities.

Program Specific Outcomes:

1. Facilitating detailed study of various agriculture forestry, Livestock and other allied branches required to raise the income of farmers.
2. Providing detailed knowledge of agriculture in India and Indian farmers income generating enterprises.
3. Knowledge dissemination regarding various technique of farming and farming system in Punjab.
4. Study of market and marketing of agricultural produce.
5. Detailed knowledge on the subject to improve the farmer's condition in Punjab by their contributions.
6. Detailed knowledge of cultivation practices, Soil, fertilizers, livestock's insect pest, economic associated with farming enterprises.
7. An understanding of and appreciation for the importance of the impact of globalization and diversity in modern agriculture organizations.
8. An ability to engage in critical thinking by analyzing situations and constructing and selecting viable solutions to solve problems.
9. Ability to recognize and examine the relationships between inputs and outputs in their agricultural field to make effective and profitable decisions.
10. Understanding of all aspects of agriculture combine and are used by scientists, marketers, and producers.

Course Outcomes:

TITTLE OF COURSE	COURSE OUTCOMES
Apiculture	CO.1. Students can adopt apiculture, sericulture and lac culture as an entrepreneur according to Agro climatic zone. CO.2. To understand commercial methods of rearing, equipment, seasonal management, insect- Pest and disease and important species for commercial use of honey bee, silkworm and lac insect. CO.3. Identification of different bio control agents (Predator, Parasite and Parasitoids) and their use for sustainable pest management.

	CO.4. Learn about mass multiplication technique of biological control agents and established a bio control lab in future as an entrepreneur.
Mushroom Cultivation	By successfully completing the course, students will be able to: CO.1. To Identify edible types of mushroom. CO.2. Gain the knowledge of cultivation of different types of edible mushrooms and spawn Production. CO.3. Manage the diseases and pests of mushrooms. CO.4. earn a means of self-employment and income generation
Organic Farming	CO.1. Initiative from Government for organic produce. CO.2. Role of NGOs in producing organic products. CO.3. Selection of crops and varieties for organic produce CO.4. Certification of organic produce.
Aquaculture	CO.1. Define, comprehend, scope and significance of aquaculture. CO.2. Acquire knowledge on taxonomy and morphology of fishes. CO.3. Examine the types and practices of Aquaculture. CO.4. Describe the food, feeding, growth, digestion and respiration in fishes. CO.5.Estimate and evaluate the functions of reproduction and endocrine glands
Landscaping and Floriculture	CO.1. To evaluate natural herbal products from an economic perspective. CO.2.To use medicinal and aromatic herbs sustainably. CO.3.To set up business related to medicinal, aromatic and landscaping. CO.4.To develops effective ideas related to collecting, processing and marketing herbal natural Sources.
Field Study/ on Hand Training/Project work with a specialization	CO.1. Acquire knowledge on management of nursery and grow-out pond; identify the major live feed organisms. CO.2. Access manuring and fertilization; Hydrobiology of pond and examine growth of finfish and shellfish. CO.3. Discuss the control of aquatic weeds, insects and predatory fishes. CO.4. Design and explain working of hatchery; apply farm laboratory equipments use . CO.5. Evaluate the preparation of fishery by products.