



- ➔ **Programme Outcomes (POs)**
- ➔ **COURSE OUTCOMES (COs)**
(2018-19)

HANS RAJ MAHILA MAHA VIDYALAYA

DDU KAUSHAL KENDRA

A GRADE

COLLEGE OF EXCELLENCE

FLAGSHIP COLLEGE

ASSOCHAM EXCELLENCE
EDUCATION AWARD

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Programme Outcomes

B.A. (Bachelor of Arts)

PO 1 Effective Communication: The programme makes the students familiar with nuances and usage of language in formal and informal expressions of life.

PO 2 Effective Citizenship: The students get knowledge in fields of social sciences, performing arts, visual arts and literature and become responsible citizens of the society.

PO 3 Social Interaction: The students are acquainted with the social, political, economic, historical and psychological facades pertaining to different situations.

PO 4 Self directed Learning: The programme gives liberty to the students to choose their area of interest out of the options available and select the post-graduate programme accordingly.

B.Sc. (Bachelor of Science)

PO 1 Critical Thinking: The programme aims to give knowledge with facts and figures related to various subjects in pure sciences such as Physics, Chemistry, Botany, Zoology, Mathematics, Computer Science, Economics, Quantitative Techniques, Bio-informatics, Bio-technology etc.

PO 2 Lifelong learning: Enable the students to understand the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevance in the day-to-day life.

PO 3 Logical experimentation: The learners acquire the abilities in handling scientific instruments, scheduling and executing the experiments in laboratories and to draw logical inferences from the scientific experiments.

PO 4 Creative thinking: They become capable of thinking creatively, to propose innovative ideas in clarifying facts and figures and providing new solution to the problems.

PO 5 Interdisciplinary approach :To give them knowledge about developments in any science subject and how interdisciplinary approach helps in providing better solutions and new ideas for the sustainable developments.

PO 6 Scientific aptitude :The programme targets to develop scientific aptitude among the students to make them open- minded, critical and curious in order to deal with all aspects related to life.

PO 7 Self reliant: To make them capable of applying their acquired knowledge and able to work on their own hence make themselves self-reliant and self-sufficient.

B.Com. (Bachelor of Commerce)

PO1 Comprehensive Financial aspects: To enable the students to have comprehensive knowledge of finance, accounting, taxation and business laws.

PO2 Entrepreneurship: To equip the students with professional, inter personal, presentation and entrepreneurial skills.

PO3 Analytical Thinking: To enhance the analytical and decision making skills of the students which can help them to prepare for various competitive exams.

PO4 Modern tool usage: To develop the accounting skill amongst the students in the computerized environment.

PO5 Leadership: Exercising professional skills, values, team spirit, and high leadership and to accept the challenges in the industry and academics.

M.A. (Master of Arts)

PO1 General Proficiency: The Masters of Arts programme provides the candidates with understanding, general proficiency, and methodical abilities on an advanced level required in industry, consultancy, education, or public administration.

PO2 Research aptitude: The students will acquire knowledge and understanding in their specific field of study as well as into current research and development work.

PO3 Complex problem handling: They will be able to demonstrate the ability to identify issues critically and to plan the assigned tasks accordingly.

PO4 Life long learning: The programme provides in-depth knowledge of particular subject and arouses interest of the students towards research in that particular field.

PO5 Social interaction: The programme (including English, Punjabi, Hindi and Political Science) combines theoretical teaching with logical tools and theories, through group work, seminars and workshops. This includes exercises in which participants co-develop and verify practical solutions to real-world issues.

B.Voc. (Bachelor of Vocation)

PO1 Industry-Academia gap bridging: Students will be able to practically understand and apply the knowledge related to the requirements of industry.

PO2 Professional competency: To provide a judicious mix of professional skills and suitable general education component.

PO3 Academic flexibility: To provide flexibility to the students to serve the industry by having exit points at different levels.

PO4 National Employability: To provide an opportunity to the students to get on the job training which help them to enhance their professional skills

PO5 Vertical mobility: To integrate NSQF within the undergraduate level of higher education in order to enhance employability of the graduates and meet industry requirements. Such graduates apart from meeting the needs of local and national industry are also expected to be equipped to become part of the global workforce. To provide vertical mobility to students coming out of 10+2 with vocational subjects.

B.F.A- Bachelor of Fine Arts

PO1 Art knowledge: The students acquire knowledge in the field of fine arts which make them sensitive and sensible enough.

PO2 Artistic thinking: The BFA graduates are acquainted with the artistic traditions and thinking.

PO3 Effective communication: Programme familiarizes them with the nuances of fine arts which make them effective communicator through brush and colours.

PO4 Practical learning: The programme enhances the confidence of the graduates through carefully chosen curriculum with emphasis on practical learning, activities and close interaction with teachers and fellow students.

PO5 Human values: The programme enables the students to acquire the knowledge with human values framing the base to deal with various problems in life with courage and humanity.

PO6 Creative learning: The students are given an exposure to creative environment which sparks their thoughts, process and help to think of the solutions of various issues in life to make this world a better place to live.

PO7 Modern tool usage: Use of ICT helps in providing experiential learning which deeply embeds and has long lasting impact.

PO8 Effective citizenship: The programme lays the foundation to become a responsible citizen and meaningfully contribute to society.

B.B.A. (Bachelor of Business Administration)

PO1 Business acumen: Apply knowledge of management theories and practices to solve business problems with the help of analytical and critical thinking abilities.

PO2 Taxation system: To have thorough understanding of business and income tax laws in the dynamic business environment.

PO3 Entrepreneurship: To inculcate entrepreneurial skills among the students.

PO4 Accounting skills: Developing accounting skills in the computerized environment

PO5 Managerial skills: Ability to understand the different areas of management such as marketing management, human resource management, production operations management.

M.Com. (Master of Commerce)

PO1 Comprehensive accounting: To enable the students to have comprehensive knowledge of contemporary issues in accounting, international accounting, international financial, management, retail management, banking and insurance, tax planning, business environment.

PO2 Capital marketing: To enable the students to have understanding of the basic concepts in capital market, different investment alternatives and to do security analysis and portfolio management.

PO3 Analytical thinking: Enhance the analytical skills of the students and substantiate the decision making process through modelling and data analysis in the field of research.

PO4 Career progression: To enable the students to prepare for competitive exams such as UGC.

B.Sc.IT (Bachelor of Information Technology)/ B.C.A. (Bachelor of Computer application)

PO1 Modern tool usage: This programme inculcates the basic understanding of Computer and Computer Programming .Languages in students so that they can have complete knowledge about the system and its inner working details.

PO2 Computer Knowledge: This programme aware the students about the high use of Computers in various fields and increasing number of Jobs in this field.

PO3 Computing environment: This programme make the students well versed with the computing environment and the various concepts, topics and subjects related to this field.

PO4 Design and development of solutions: This Programme enables the students to have the complete understanding of various branches of Computer and Technology such as Computer Graphics, Operating Systems and Data Structures,

PO5 Problem solving and analysis: This programme will inculcate the ability of identify, analyze and synthesize scholarly literature relating to the field of computer science and IT.

PO6 Design of Solutions: The effectiveness of this programme is to ensure that the students understand the use of software development tools, IDEs, various software system and modern computing platforms.

DCA (Diploma in Computer Applications)

PO1 Introductory knowledge of computer:This programme enables the students to have an introductory level of knowledge in computer field so that they can pursue higher studies after higher secondary classes.

PO2 Application software understanding: This one year programme will provide the basic insights of various application software which are being used in various fields, offices and companies.

PO3 Hardware and software knowledge: This programme enables the students to understand the basic working of computer systems and learn the basic concepts of system so that they can have basic general knowledge of system.

PO4 Job oriented output: This programme provides beneficial outcomes to the students for preparing for competitive exams and grabs a job in educational and governmental institutions.

Bachelor of Design (BD)/ Bachelor of Design-Multimedia (BD-MM)

PO1 Practical design knowledge: The programme endeavours to provide the learners with excellence in theoretical orientation combined with practical experience, over the tenure of four years.

PO2 Creativity imbibtion: To enhance communication, presentation and creative skills of the students.

PO3 Media Knowledge: Students become capable to exhibit knowledge of print and electronic media.

PO4 Software application: To make the students learn and become specialized in various 3D visual representation tools like Autodesk MAYA, 3Ds Max etc.

PO5 Design/Development of Solution: This course produces various employment opportunities as Graphics Designer, 2D/ 3D Animator, Web Designer, Video Editor, Professional Photographer, VFX artist, Cinematographer, Creative Designer, Art Director, Illustrator or Cartoonist, Visualizer, Teaching Profession, Character Designers, Professional Photographers, Freelancer etc.

Course Outcomes

Department of English

Name of the Course: General English

B.A. (Bachelor of Arts)/ B.Sc. Medical/ Non-Medical/ Computer Science

Semester-I

Paper: English

CO 1: Students would be able to comprehend the literary aspects of the language.

CO 2: Learning or studying grammar would guide them to focus on syntactic & semantic parts of the language.

CO 3: It would help them to deal with the globalization through a common language.

CO 4: The stories in the coursework provide students psychological & social growth through the details of different cultures & society i.e. their traditions, rituals, beliefs etc.

CO 5: Students' writing skills and reading skills would be enhanced.

Semester-II

Paper: English

CO 1: Students would be able to comprehend the literary aspects of the language.

CO 2: Learning or studying grammar would guide them to focus on syntactic & semantic parts of the language.

CO 3: It would help them to deal with the globalization through a common language.

CO 4: The stories in the coursework provide students psychological & social growth through the details of different cultures & society i.e. their traditions, rituals, beliefs etc.

CO 5: Students' writing skills and reading skills would be enhanced.

Semester-III

Paper: English

CO 1: Gaining knowledge of the technical aspects of the language.

CO 2: Thinking ability gets enhanced through while dealing with themes of Poetry.

CO 3: They would be able to understand the significance of Literature and Grammar.

CO 4: Enhancing awareness of Community, culture and Language.

Semester-IV

Paper: English

- CO 1: Gaining knowledge of the technical aspects of the language.
- CO 2: Thinking ability gets enhanced through while dealing with themes of Poetry.
- CO 3: They would be able to understand the significance of Literature and Grammar.
- CO 4: Enhancing awareness of Community, culture and Language.

Semester-V

Paper: English

- CO 1: Brings an awareness of American Society and students get to know about materialistic thinking of American merchants.
- CO 2: Concept of American dream is introduced to students.
- CO 3: Through poems students get to know about different trends in Poetry of different eras in English literature.
- CO 4: Letters, Application, Report, Resume Writing is helpful for students in their formal interaction with others.

Semester-VI

Paper: English

- CO 1: The text promotes ethical values.
- CO 2: Essay Writing Skills train them in fulfilling the social duties.
- CO 3: It helps them to comprehend human weaknesses and overcome them.
- CO 4: Improvement in writing skills along with broadening their social and psychological horizon.

Name of the Course-General English

B.Com.

Semester-I

Paper: English

- CO 1: Students would be able to comprehend the literary aspects of the language.
- CO 2: Learning or studying grammar would guide them to focus on syntactic & semantic parts of the language.
- CO 3: It would help them to deal with the globalization through a common language.
- CO 4: The stories in the coursework provide students psychological & social growth through the details of different cultures & society i.e. their traditions, rituals, beliefs etc.
- CO 5: Students' writing skills and reading skills would be enhanced.

Semester-II

Paper: English

- CO 1: Students would be able to comprehend the literary aspects of the language.
- CO 2: Learning or studying grammar would guide them to focus on syntactic & semantic parts of the language.
- CO 3: It would help them to deal with the globalization through a common language.
- CO 4: The stories in the coursework provide students psychological & social growth through the details of different cultures & society i.e. their traditions, rituals, beliefs etc.
- CO 5: Students' writing skills and reading skills would be enhanced.

Semester-III

Paper: English

- CO 1: Gaining knowledge of the technical aspects of the language and also enhancing reasoning and logical ability.
- CO 2: Sensitising students to social issues and they learn to interpret situations from variegated perspectives.

CO 3: Thinking ability gets enhanced through while dealing with themes of Poetry.

CO 4: Enhancing awareness of Community, culture and Language.

Semester-IV

Paper: English

CO 1: Gaining knowledge of the technical aspects of the language and also enhancing reasoning and logical ability.

CO 2: Sensitising students to social issues and they learn to interpret situations from variegated perspectives.

CO 3: Thinking ability gets enhanced through while dealing with themes of Poetry.

CO 4: Enhancing awareness of Community, culture and Language.

Semester-V

Paper: English

CO 1: Brings an awareness of American Society and students get to know about materialistic thinking of American merchants.

CO 2: Concept of American dream is introduced to students.

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CO 4: Letters, Application, Report, Resume Writing is helpful for students in their formal interaction with others.

Semester-VI

Paper: English

CO 1: The text promotes ethical values.

CO 2: Essay Writing Skills train them in fulfilling the social duties.

CO 3: It helps them to comprehend human weaknesses and overcome them.

CO 4: Improvement in writing skills along with broadening their social and psychological horizon.

Name of Course- General English

B.Voc.

Semester-I

Paper: Communication Skills in English

CO 1: The students get to know the relevance and importance of proper communication.

CO 2: They learn about the various aspects of communication.

CO 3: The reading and writing skills of the students get improvised.

CO 4: Their writing skills get enhanced as they learn how to frame official letters, applications, office memorandum, notices etc.

Semester-II

Paper: Communication Skills in English

CO 1: Improves the listening and speaking skills of the young learners.

CO 2: Sharpens their communication proficiency as they gain practical knowledge about how to deal and interact with others.

CO 3: Raises their confidence level.

CO 4: Makes them familiar with the correct and accurate pronunciation of English word as they work on fluency in English as well as proper intonation and accent of speaking.

Name of Programme: B.A. with Honours

Course Outcomes

Elective English

Semester-I

Paper: Elective English

- CO 1: Learning the critical appreciation of English literature.
- CO 2: Understanding of literary devices.
- CO 3: Critical analysis of literature in the light of culture, psychology, and economics.
- CO 4: Improvement of pronunciation, and inculcate an understanding of phonetics.

Semester-II

Paper: Elective English

- CO 1: Learning the critical appreciation of English literature.
- CO 2: Understanding of literary devices.
- CO 3: Critical analysis of literature in the light of culture, psychology, and economics.
- CO 4: Improvement of pronunciation, and inculcate an understanding of phonetics.

Semester-III

Paper: Elective English

- CO 1: Familiarization with the current issues of the society.
- CO 2: Developing critical and analytical ability of the learners.
- CO 3: Imbibing the creative world of the writers from all over the world.

Semester-IV

Paper: Elective English

- CO 1: Familiarization with the current issues of the society.
- CO 2: Developing critical and analytical ability of the learners.
- CO 3: Imbibing the creative world of the writers from all over the world.

Semester-V

Paper: Elective English

- CO 1: Understanding the background of the English Literature and thus appreciating the evolving of the English drama, poetry and novel.
- CO 2: Learning the art of the critical reading of English drama.
- CO 3: Appreciating the cultural differences as well the universality of humanity in the literature.

Semester-VI

Paper: Elective English

- CO 1: Understanding the modern critical movements and their impact on English literature.
- CO 2: Reading the novel with a focus on the cultural depiction.
- CO 3: Getting to know the historical implications of the Second World War on the state of Bengal.

Name of Programme: BCA/ BFA/ B.Sc. (IT)/ BD

Communication Skills

Semester-I

Paper: Communication Skills in English

- CO 1: The students get to know the relevance and importance of proper communication.
- CO 2: They learn about the various aspects of communication.
- CO 3: The reading and writing skills of the students get improvised.
- CO 4: Their writing skills get enhanced as they learn how to frame official letters, applications, office memorandum, notices etc.

Semester-II

Paper: Communication Skills in English

- CO 1: Improves the listening and speaking skills of the young learners.
- CO 2: Sharpens their communication proficiency as they gain practical knowledge about how to deal and interact with others.
- CO 3: Raises their confidence level.
- CO 4: Makes them familiar with the correct and accurate pronunciation of English word as they work on fluency in English as well as proper intonation and accent of speaking.

Name of Programme: B.Sc. (Bio-Technology)

Communication Skills

Semester-I

Paper: Communication Skills in English

- CO 1: The students get to know the relevance and importance of proper communication.
- CO 2: They learn about the various aspects of communication.
- CO 3: The reading and writing skills of the students get improvised.
- CO 4: Their writing skills get enhanced as they learn how to frame official letters, applications, office memorandum, notices etc.

Semester-II

Paper: Communication Skills in English

- CO 1: Improves the listening and speaking skills of the young learners.
- CO 2: Sharpens their communication proficiency as they gain practical knowledge about how to deal and interact with others.
- CO 3: Raises their confidence level.
- CO 4: Makes them familiar with the correct and accurate pronunciation of English word as they work on fluency in English as well as proper intonation and accent of speaking.

Name of Programme: M.Sc. (Fashion Designing)

Communication Skills

Semester-I

Paper: Communication Skills in English

- CO 1: Enhances students' ability to be an effective speaker, listener, reader as well as writer.
- CO 2: Develops expertise in the English language.
- CO 3: Enhances knowledge of grammar and English language in general.
- CO 4: Gets opportunity to participate in debates, Elocution and other co-curricular activities in various universities.
- CO 5: Students learn to interact.
- CO 6: Helps in career development.
- CO 7: Students learn writing different kinds of Business letters.
- CO 8: Increases vocabulary through interaction.

Semester-IV

Paper: Communication Skills in English

- CO 1: The knowledge and skills in English get enhanced.
- CO 2: There is a remarkable improvement in the ability to express.
- CO 3: Learns to apply grammar in spoken and written form of communication with accuracy.
- CO 4: Participation in competitions organized by other academic institutions further enhances their confidence and gives them a platform for self-expression.
- CO 5: Improves the formal writing skills and prepares them for public dealing.

Name of Programme: M.A.

Course Outcomes

Semester-I

Paper-I: Poetry-I Renaissance to Romantic

- CO 1: To acquaint the students with the most significant English poets and their poetry.
- CO 2: To acquaint students with major trends in English literature from the times of Renaissance to Romanticism through a detailed study of poetry of that time.
- CO 3: Enable students to trace the evolution of various poetic forms.
- CO 4: To train the students in the close reading of poems in the contexts of literary convention and history.

Paper-II: Renaissance Drama

- CO 1: Students will get familiarized with the Renaissance Age, its significance and its impact on the literary trends of the age.
- CO 2: Students will understand and appreciate the evolving of the English Drama from religious domain to the creative human domain i.e. shift from Theo-centric to homocentric approach.
- CO 3: There will be inculcated an understanding of the universality and timelessness of human aspirations and efforts.
- CO 4: Students will learn to read drama in the light of the psychological theories like Oedipus complex.
- CO 5: Students will get to know the theory of Humors prevalent in the ancient Ages.
- CO 6: They will get a thorough understanding of Drama as an Art through their reading of Aristotle's Poetics.

Paper-III: English Novel (up to 19th Century)

- CO 1: Students will understand the Impact of industrialization strongly felt in 'Hard times' by Dickens.
- CO 2: They will study of emergence of women writers and understand their standpoint on the place of women in society.
- CO 3: Inculcating a comprehension of the concept of Realism as used in the Victorian era in the students.
- CO 4: Developing an understanding of the emerging feminism and studying the filial relationships shadowed with strong human passion of violence.

Paper-IV: Phonetics and Spoken English

- CO 1: To introduce students with the world English-es (i.e. varieties of English) at the phonological level.
- CO 2: Making students Understand the standard version of spoken English, i.e. R.P.
- CO 3: Introducing students with all the 44 sounds (i.e. phonemes) of English.
- CO 4: Making students understand different features of connected English speech.
- CO 5: Introduce the grammatical, semantic, and emotional importance of the rise and fall (i.e. intonation patterns) in English speech to the students.

Paper-V: Western Literary History-I

- CO 1: Students will be able to analyse literary texts in light of their historical and intellectual background.
- CO 2: Students will become familiar with important literary figures and canonical works of historical period i.e. studied.
- CO 3: Students will be able to analyse literary texts either singly or in relation to other texts, contextualize them in the light of the period in which they were written.

- CO 4: Students will get to know about the journey of English as literature and as a language from past to present.
- CO 5: They will be expected to know how to read and interpret some key texts.
- CO 6: Students will gain knowledge of different literary movements.
- CO 7: They will get familiarized with different literary periods and eras.
- CO 8: An in-depth knowledge of different literary genres like drama, poetry and fiction of various ages will come to students.
- CO 9: Students will get to know various religious, geographical, historical and personal factors that influenced English literature and its writers in the past.

Semester-II

Paper-VI: Poetry-II (Victorian & Modern)

- CO 1: To familiarize students with English Poetry starting from Victorian age and moving towards the modern period.
- CO 2: To acquaint students with major trends in English literature from the times of Victorian age to modern times through a detailed study of poetry of that time.
- CO 3: Enable students to trace the evolution of various poetic forms
- CO 4: To train the students in the close reading of poems in the contexts of literary convention and history.

Paper-VII: Modern Drama

- CO 1: Comprehension of Christianity as an orthodox and fanatic religion in the Past.
- CO 2: Gaining knowledge about French Kingdom and its society.
- CO 3: Understanding the postmodern concept of meaninglessness of human existence conveyed through Beckett and Pinter's works.
- CO 4: Getting acquainted with Eliot's platonic view of spiritual salvation and regeneration.
- CO 5: Sensitization towards man's alienation from the society thereby depicting growing concerns for the institution of family.

Paper-VIII Modern Novel

- CO 1: An understanding of the modernism and the techniques like Stream of Consciousness as a novel literary technique.
- CO 2: Comparing the chronological order in fiction- writing adopted in 19th century with 20th Century focus on psychological impact of the 'moment'.
- CO 3: Getting acquainted with the theory of Oedipus complex by Freud which had a strong impact on the writings of DH Lawrence.
- CO 4: Understanding the shift in sensibilities, perceptions and expressions in twentieth Century writings.

Paper-IX: English Grammar and Writing

- CO 1: To provide an understanding of the practical, functional, and experimental nature of modern grammar.
- CO 2: Understanding of the smallest meaningful units and how they form words in English.
- CO 3: Comparing grammatical form and its function in different environments.
- CO 4: Comparing time, tense, aspect, and mood in English.
- CO 5: Introducing types of sentences and clauses, their function, and how cohesive devices are used to create long text.
- CO 6: Applied grammar and composition and how the understanding of language is essential beyond grammar.

Paper-X: Western Literary History–II

- CO 1: The course covers the period from World War I to the present age by which the students become acquainted with the transitions in society with time.
- CO 2: Literature is universal and so the syllabus unfolds the layers of literature from all the spheres of world i.e. British, American, Continental.
- CO 3: The learner imbibes the scenario and structure of a particular society and is able to relate literature with its respective era.
- CO 4: The students understand the historical stance of each genre.

Semester-III**Paper-XI: Irish Literature**

- CO 1: Analysing, Synthesising and Integrating knowledge and practice creative thinking and expression.
- CO 2: Getting acquainted with concepts and information related to Irish History and Culture clearly.
- CO 3: Understanding of mythological and literary concepts.
- CO 4: Helps in the construction of nation and national history through literature.

Paper-XII: General Linguistics

- CO 1: Understanding of semiotics and the way various signs and symbols convey meaning.
- CO 2: The study of synchronic structural linguistics of Saussure and Bloomfield.
- CO 3: Understanding and knowledge of transformational-generative linguistics of Chomsky.
- CO 4: Highlighting the importance of systemic functional linguistics of Halliday.
- CO 5: Acquainting students with various methods of teaching (grammar-translation method, direct method, audio-lingual method) and approaches (structural and communicative approaches).

Paper-XIII: Literary Criticism

- CO 1: To introduce the various aspects of literary criticism for proper understanding and appreciation of literature.
- CO 2: To acquaint students with some of the fundamental questions in literature.
- CO 3: This course aims at helping the students to develop critical insight into literary productions.
- CO 4: To introduce literary and critical theory as reading tools for students.

Paper-XIV: Indian Writing in English

- CO 1: Acquainting students with the 20th century Indian writers writing in English.
- CO 2: Developing a strong understanding of Indian-ness contrasted with western culture.
- CO 3: Understanding the concept of domination of male in society-- a patriarchal set up.
- CO 4: Getting students acquainted with Kamala Das's creativity with its autobiographical strain, and her voice against the sexual exploitation faced by women in our society.
- CO 5: Understanding the class differences and the exploitation of the lower castes.

Paper-XV: Communication Studies

- CO 1: Understanding the nature of language of cinema.
- CO 2: Getting acquainted with the visual mode of story-telling.
- CO 3: Imbibing potential for cross culture communication.
- CO 4: Gaining knowledge of the medium and models of communication.
- CO 5: Improving interpersonal skills of the stakeholders.

Semester-IV**Paper-XVI: Modern Literary Theory**

- CO 1: Introduction of students to theories like- feminism, structuralism, orientalism etc.
- CO 2: Familiarization with knowledge areas and analytical tools.
- CO 3: Learning to De –construct the text to find out new meanings.
- CO 4: Using ideas from text in reading and writing.

Paper-XVII: American Literature

- CO 1: Students will perceive the evolving of a great nation-America from a Puritan narrow foundation.
- CO 2: Learning to trace the belief and faith in humanity which is the true foundation of Democracy.
- CO 3: Envisioning the universal philosophical vision about life, work, and humanity in the poetry of Frost.
- CO 4: Psychological study of the concept of racial prejudices, collective unconscious and understanding the relevance of human dignity in life.

Paper-XVIII: Post-Colonial Literature

- CO 1: To familiarize the students with theoretical concepts related to the literatures of the 'new' world - Caribbean, Asian, Canadian, Nigerian - which have long remained ignored.
- CO 2: To foreground issues such as history, class, race, gender, nation, culture, marginality, diaspora consciousness.
- CO 3: To enable students to primarily focus on interrogating the Western canon.
- CO 4: To introduce students to recent theoretical approaches to understand post-colonial, and gain a better insight into how these issues relate to their own country's history of colonisation.

Paper-XIX: Prose and Short Stories

- CO 1: Understanding the origin and development of English essay.
- CO 2: Understanding a literary text in different contexts.
- CO 3: Imbibing knowledge of socio political and economic conditions of the society.
- CO 4: Developing an ability to write critically and creatively.

Paper-XX: Indian Literature In Translation

- CO 1: Reading *Japjiis* to reach into our inner conscience cuts through the folds of our ego so as to understand the true purpose of life.
- CO 2: Tracing the relevance of Tagore's Novel in modern times for its delineation of the conflict between the forces of fanatic Nationalism and humanism.
- CO 3: Understanding the rich heritage of Sanskrit drama from *KalidasKavya* and the concepts of Epic and lyric.
- CO 4: Attempting to reconcile Modernity and tradition through works of Anantha Murthy which challenges the orthodoxy of Brahmanism.

Department of Hindi

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes**Semester-I****Paper: AadhunikKavita ,VayakarantathaAnuvaad**

- CO 1: Students will learn about the uses of translation.
- CO 2: Students will learn about Hindi grammar.
- CO 3: The students are provided with the knowledge of Hindi literature.
- CO 4: They will get knowledge about Hindi as an official language.

Semester-II**Paper: GadhyeSahitye ,Sadhantki , VayakarantathaPatrakarita**

- CO 1: Students will learn about media writing skill.
- CO 2: Students will get knowledge about contemporary literature.
- CO 3: They will be provided with the knowledge about vocabulary.
- CO 4: They will understand about prose literature.

Semester-III

Paper: MadhyayogeenKavye ,Itihas , VayakarantathaKavayang

- CO 1: Students learn and understand about history of hindi literature.
CO 2: The students are provided with the knowledge about medieval hindi poetry and poets.
CO 3: They are provided with the practice of hindi grammar.

Semester-IV

Paper: Upanayas :Natak : SadhantkiVayakarantatha Bhakti Kaal

- CO 1: The students are provided with the knowledge about bhakti period of hindi literature.
CO 2: They will be able to understand about the various literary forms.
CO 3: They are provided with the knowledge of social reformer and revolutionary hindi author Premchand through his novel 'Nirmala'.
CO 4: They will get the Practical knowledge of grammar.

Semester-V

Paper: VishishtKaviAvamKavyaSadhant ,Kaamkaji Hindi tathaReetikaal

- CO 1: Students are provided with the knowledge of history of hindi literature especially about reetikaal.
CO 2: They will get knowledge about linguistics.
CO 3: They will learn and understand Hindi - as an official language.
CO 4: The Students will be acquainted with the Knowledge about the great Indian scripture 'Mahabharat' and its relevance in our day to day life through hindi epic 'Rashmirathi' authored by 'Ramdhari Singh Dinkar'.

Semester-VI

Paper: LaghuVidha ,AadhunikKaal , Nibandh Lekhantatha Paribhashik Shabdawali

- CO 1: Students will learn about official language hindi.
CO 2: They are provided with the knowledge of contemporary hindi literature.
CO 3: They will get the knowledge about various hindi genres.
CO 4: They learn and understand about vocabulary.

Name of Programme: B.A. with Hindi Honours

Course Outcomes

Semester-III

Paper: Aadhunik Kavyetatha Kavya Natak

- CO 1: Students will be provided with the knowledge of Modern poetry of hindi literature.
CO 2: They will learn and understand about contemporary period through historical play.
CO 3: They will learn about sociological, psychological aspects of society through modern poetry.

Semester-IV

Paper: Gadhya Sahityetatha Nibandh

- CO 1: Students will get knowledge about different forms of hindi prose.
CO 2: They will learn and understand about rich Indian culture, its traditions etc.
CO 3: They will be provided with the knowledge of different aspects of society through hindi literature.

Semester-V

Paper: Bhakti aur Samkaleen Kavaya

- CO 1: Students are provided with the knowledge about the medieval period of hindi.
CO 2: They will get knowledge about great poet Tulsidas and his literature or contemporary world etc.
CO 3: They will get knowledge about Krishna kavaya through 'RaskhaanRachnavli'.

CO 4: They will learn and understand the various aspects of modern poetry.

Semester-VI

Paper: Bhartiye Kavayashastra aur Paryojanmulak Hindi

CO 1: Students will get knowledge about linguistics.

CO 2: They will understand about Hindi – as national language.

CO 3: They will get knowledge about official language etc.

Name of Programme: M.A. (Hindi)

Course Outcomes

Semester-I

Paper-I: Adhunik Hindi Kaye (Divediyugeen Avam Chayavaad)

CO 1: Students will learn about contemporary literature.

CO 2: They are provided with the knowledge of Sociological, Psychological aspects of our society.

CO 3: They will learn about different poet like – MaithlisharanGupt, SuryekantTripathiNirala, JaishankerParsad etc.

CO 4: They are provided with the knowledge of historical literature like Ramayan, Mahabharat etc.

Paper-II: Hindi SahityeKaItihas (Aadhikaal, Bhagtikaal, Reetikaal)

CO 1: Students will learn about origin of hindi literature.

CO 2: They are acquainted with the knowledge of history of hindi literature.

CO 3: They are provided with the knowledge of different aspect of literature.

CO 4: They will learn about our religious epic like – Ramchritmanas.

Paper –III: BhartiyeKavyeShastraAvamSahitalochna

CO 1: Students are provided with the knowledge of linguistics.

CO 2: They learn about different forms of hindi poetry and prose.

CO 3: They will be acquainted with the basic concepts related to technical aspects of hindi.

CO 4: They are provided with the knowledge of hindi grammar and dialects.

Paper-IV: Prayojanmulak Hindi

CO 1: The students are provided with the knowledge of hindi as official language.

CO 2: Students will learn about technical and official vocabulary used in hindi language.

CO 3: They are acquainted with the detail knowledge of functional hindi.

CO 4: They are provided with the knowledge of computer and internet.

Paper-V: Natak and Rangmanch

CO 1: Students will learn about the history of hindi theatre.

CO 2: They are provided with Sociological and psychological study of Indian play.

CO 3: They will learn and understand the various aspects of social psychology through hindi plays.

CO 4: Students will get knowledge about great hindi writer like – Bhartendu Harishchandra, Jai Shanker Parsad etc

Semester-II

Paper-VI: Aadhunik Hindi Kaye –Chayavaadottar Hindi Kaye

CO 1: The students are provided with the knowledge of modern period of Hindi literature.

CO 2: They will learn and understand of social scenario of India.

CO 3: They will be provided with the knowledge of political aspects of india.

CO 4: They are taught about various modern poet like –Muktibodh, Aagye, Dhumil etc.

Paper-VII: Hindi Sahitye KaItihas (Adhunik Kaal)

- CO 1: Students will learn and understand about various forms of literature.
- CO 2: They will be provided with the knowledge of contemporary Hindi literature.
- CO 3: They are get knowledge about social, religious aspects of society.
- CO 4: They will learn about various characteristics of modern literature.

Paper-VIII: Pashchatye KavyeShastra

- CO 1: Students will learn about the various theories of western philosophers about literature.
- CO 2: They will learn and understand about the impact of various revolutions on literature.
- CO 3: They will get knowledge about different aspects of Kavshastra.
- CO 4: They will be provided with the practical knowledge of Hindi criticism.

Paper-IX: Media Lekhan

- CO 1: Students will learn and understand about media, internet and modes of MCVP.
- CO 2: It will help to improve writing skills editing skills as well as reading skills, newspaper making skills amongst students.
- CO 3: They will learn and provided with the knowledge about computer practical work in hindi.

Paper-X: Natakkar Mohan Rakesh

- CO 1: Students will study about psychological and sociological aspects of society through hindi plays.
- CO 2: They will get knowledge about the Role of Indian theatre/ art in modern society.
- CO 3: They will learn about writing skills of Natak.

Semester-III**Paper-XI: Pracheen Avam Madhyakaleen Hindi Kavaya**

- CO 1: The students will be acquainted with the Aadikaleen and Bhaktikaleen hindi poets and their writings.
- CO 2: They will learn about Nirgun and Sagunpoetry.
- CO 3: They are provided the knowledge regarding development of hindi Language with the sincere-efforts of Madhakaleenpoets.
- CO 4: Students will learn regarding Indian culture through the poetry of eminent Madhakaleen poets.
- CO 5: Awareness is created among students regarding the hindi Suffi-Poetry.

Paper-XII: AadhunikGdayaSahitya

- CO 1: Student will get information about the history.
- CO 2: Students will get knowledge about different types of modern Hindi Story, Novel etc.
- CO 3: They will get information about different types of Modern Hindi prose.
- CO 4: They will be acquainted with the modern Prose-writers.
- CO 5: Students are provided the knowledge regarding Munshi Premchand, Mahadevi Verma, Bhism Sahni, Yashpal and their prose writings.
- CO 6: Awareness is created among the students regarding the modern day today social problems and their solutions through the different writings.

Paper-XIII: Bhasha-Vigyaan

- CO 1: The students will be acquainted with the language, its components, forms etc.
- CO 2: The students will learn about linguistics.
- CO 3: They are provided the knowledge regarding Dhawani-Vigyan, AarthVigyan of language.
- CO 4: They will learn about different linguistics forms.

Paper- XIV: Patarkarita Parkashan

- CO 1: The students will be acquainted with the importance of Print and Electronic Media.
CO 2: The students will learn about the role of Newspapers and magazines in our life.
CO 3: They are provided the knowledge regarding the role of Editors, Sub-Editor, Correspondent, Proof-readers etc. in the Newspapers.
CO 4: They will learn the writing skill for Newspapers, Magazines etc.
CO 5: They will get information about the scope of Print Media and how they can choose it as a profession.

Paper-XV Option (I) : Bhaktikaleen Poet-Surdass

- CO 1: The students will be acquainted with the great writings.
CO 2: They will learn about Pushtimargeeye Bhakti.
CO 3: They are provided the knowledge regarding philosophical element in SurdassKavaya.
CO 4: They will get knowledge about "Nirgun-Sagundavand" prevailed at that particular era.
CO 5: Awareness is created among the students regarding the lyrical poetry.

Semester-IV**Paper-XVI: Madhyakaleen Hindi Kavaya**

- CO 1: The students will be acquainted with the Madhayakaleenhindi poetry.
CO 2: The students will learn about hindi Krishna Bhakti-Dhara.
CO 3: They will get knowledge about the great Hindi Epic "Ram CharitManas" and its importance in that period.
CO 4: They are provided the knowledge regarding the relevance of Madhakaleenhindi poetry in present era.
CO 5: Awareness is created among the students regarding hindiReeti-kaleen poetry with the Bihari's poetry and its unique features.

Paper-XVII: AadhunikGadyaSahitya

- CO 1: The students will be acquainted with the modern essay-writings, auto biographic in hindi literature.
CO 2: They will learn about Mahatma Gandhi's life-sketch, his great doings, great thoughts through his auto-biography.
CO 3: They are provided the knowledge regarding day to day social problems and their solutions through different prose-writings about great author from Punjab.
CO 4: They are provided knowledge regarding Modern Society through "Aadhe Adhure" play authored by Mohan Rakesh as this play is the mirror of modern society and its problems.

Paper-XVIII: Hindi Bhashaaur Devnagri Lipi

- CO 1: Students will learn about origin and history of different languages.
CO 2: They will be acquainted with the history of hindi language.
CO 3: They are provided the knowledge regarding the Devnagri Lipi as a scientific lipi.
CO 4: Awareness is created among the students regarding different dialects of hindi language.

Paper-XIX: Rajbhasha-Prashikshan

- CO 1: The students will be acquainted with the importance of official languages.
CO 2: The students will get information about hindi as an official language.
CO 3: The students will learn about the different constitutional articles regarding official language hindi.
CO 4: The students are provided the knowledge regarding hindi computing.
CO 5: Awareness is created among the students regarding the need of translators in government offices.

Paper-XX: Uttar Kavayadharake Sandharbh mein Guru Teg Bahadur ki Banika Vishesh Adhyan

CO 1: The students will be acquainted with the Uttar Kavayadhara of hindi literature.

CO 2: The students will learn about Guru TegBahadur'sBani.

CO 3: The students will learn regarding the impact of Guruji'sBani on Punjabi and hindi literature of Punjab.

CO 4: Students are provided the knowledge regarding the progressive attitude of Guruji'sBani.

Department of Punjabi

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: General Punjabi

CO 1: Students will learn about the moral value of our society with references of Biography.

CO 2: Students will also learn about the sound–planning of phonetics.

CO 3: Students will gain the cultural knowledge of Punjab.

CO 4: Students will come to know about our some renowned artists, painters, actors and scholars of India.

Semester-II

Paper: General Punjabi

CO 1: Students will learn how to handle the social, economic and political problems.

CO 2: Students will get the information about words structure.

CO 3: They will learn truths of life from idioms and phrases which are treasure of knowledge of our ancestors.

Semester-III

Paper: General Punjabi

CO 1: It provides the knowledge about the poets and their poetry.

CO 2: Students will feel attached with nature and environment after reading.

CO 3: It (poetry) will increase the knowledge about Punjabi culture, moral values in students.

CO 4: With this students will learn about the different idioms in their own common language that is punjabi.

Semester-IV

Paper: General Punjabi

CO 1: Students will learn the ways of writing Business letter like sales letter, complaint letter and inquiry letter.

CO 2: Students will learn how to write and usepunjabi in accurate words as well as special focus on pronunciation.

CO 3: Students will get the knowledge about martyrs of country with one act plays.

CO 4: They will acquire the knowledge about scripts, and how it is suitable for the language.

Semester-V

Paper: General Punjabi

CO 1: Students will acquire the knowledge to write compositions on different topics relating to social and moral values and issues.

CO 2: Students will learn about the vowel and sounds in linguistics.

CO 3: Students will learn about causes of social problems like poverty, gender discrimination, and cast discrimination.

CO 4: They will also learn how to handle the problems of society.

Semester-VI

Paper: General Punjabi

- CO 1: They will acquire knowledge about culture of uncivilized tribes of Andaman and Nicobar Island.
- CO 2: Students will learn the culture of various countries like Switzerland, Bangkok etc.
- CO 3: Students will learn about the moral value of our society with the references of stories.

Name of Programme: M.A. (Punjabi)

Course Outcomes

Semester-I

Paper: I Gurmat-Kav

- CO 1: Students will learn about the history of ten guru sahibaans and their Gurbani .
- CO 2: Students will gain the knowledge about the main motif of our life by Gurbani

Paper: II Punjabi Sufikav

- CO 1: Students will learn about Sufi saint and their struggles, ethical life and other significant aspects of their lives.

Paper: III SahitSidhant Ate BhartiKaavShaster

- CO 1: Students will get proper literary information and its importance.
- CO 2: They become familiar with the boundaries and modes of literature.
- CO 3: They will get the Extensive information on Indian and western literature.
- CO 4: They will get the knowledge about criticism of literature.

Paper: IV Lokdhara Ate Punjabi Lokdhara

- CO 1: Students will gain the knowledge about the folklore and its various types.
- CO 2: Students will also learn about folk religion, believes and rituals
- CO 3: Students will be informed about the different Punjabi folk art.

Paper: V Tunatmik Sahit

- CO 1: By studying this subject students will learn about comparative study as well as translation of literature.
- CO 2: Students will experience the tragedy of India-Pakistan separation in 1947, which was an inhuman phenomenon.
- CO 3: Students will gain knowledge about the absence of life through absurd plays.

Semester-II

Paper: VI Bhakti Kav

- CO 1: Students will learn and focus on the pure pronunciation and linguistic of Gurbani.
- CO 2: The study of such poems leads the students to right fruitful path in real sense.

Paper: VII Madhkaleen Punjabi BirtanatKav

- CO 1: Students will gain the knowledge about the medieval Punjabi literature
- CO 2: Students will also get the knowledge about our guru sahibans.
- CO 3: With the references of Punjabi kissa- kav students will learn about our medieval culture.

Paper: VIII Khoj Ate Punjabi Alocna

- CO 1: Students will get the information about the history of Punjabi criticism.
- CO 2: They will be able to do practical criticism of literary works.
- CO 3: They will be gain the knowledge about the foreign criticism as well as Indian criticism

Paper: IX Punjabi Sabheyachar

- CO 1: Through the syllabus, students will get the opportunity to study culture, folk, literature, Punjabi plays and theatre which they will experience personally by their interaction with their paternal grandmothers.

CO 2: Some of the students even recorded the folk song in the melodious voice of their grandmother.

Paper: X Patarkari Ate Punjabi Patarkari

CO 1: Students will get the information regarding the rules and activities of journalism.

CO 2: Students will gain the knowledge about all the activities related to journalism in Punjabi.

CO 3: Students will learn electronic media such as Google, Facebook, Whatsapp etc.

Semester-III

Paper: XI Adhunik Punjabi Kavita (1960 Tak)

CO 1: After knowing the principle, history and paradigm of modern Punjabi poetry, the information of students will increase.

CO 2: Students will read and understand the collection of poetry and will also learn about poet's ideology.

Paper: XII Punjabi Novel

CO 1: Students will be able to learn about the origin of Punjabi novel and its development under the effect of English novel.

CO 2: Students will learn about Nanak Singh who is first reformist novelist, wrote about corruption, religious propagandas, women's condition in male dominating society and satire on our all systems which are corrupted by power seeking people and common man is sufferings.

Paper: XIII Punjabi Bhasha Ate Bhasha Vigyaan

CO 1: Students will get the rich knowledge about Punjabi language.

CO 2: Students will learn about the developments in the Punjabi language.

CO 3: They will be motivated to opt the research in Punjabi language.

Paper: XIV Punjabi Sahit Da Itahas(1850 Tak)

CO 1: This paper will not only introduce the students to the meaning of literature; to the importance of literature in real life or to the information related to various renowned names in the literary history but also inspire them to go through the process of converting their ideas into different genres.

CO 2: History of Punjabi literature gives them a holistic approach towards the era in which any work has been imbibed by the literary artist.

CO 3: It will provide politically, social, economic as well as cultural insight into the development of work over the period of time.

Paper: XV Parvasi Punjabi Sahit

CO 1: It will provide the informative knowledge about the syllabus and Diaspora.

CO 2: All topics concern with human values and social problems of post modernism.

CO 3: Social & cultural perspective of western countries.

Semester-IV

Paper: XVI Adhunik Punjabi Kavita(1960 Ton Bad)

CO 1: The poetry after 1960s will be discussed with the students.

CO 2: They will be accepted the modern social experience by reading the poems of modern Punjabi poets Jagtar, Surjit Patar and Sukhwinder Amrit.

Paper: XVII Punjabi Nikki Kahani

CO 1: Students will develop their vision to understand life and how to live life by reading stories of different Punjabi writers.

CO 2: They will understand the value of relation, social values and real meaning of life.

Paper: XVIII PunjabiBhasha Ate BhashaVigyaan 2nd

- CO 1: Love for mother tongue will increase, with which the propagation of self-written writings among the students will increase.
- CO 2: Students will be motivated to select Punjabi linguistics as a subject for civil services.
- CO 3: By comparing Punjabi language with other languages, they will understand the importance of mother tongue.

Paper: XIX PunjabiNatak

- CO 1: Students will develop their vision to understand life and how to live life.
- CO 2: They will understand the value of relation, social values and real meaning of life

Paper: XX Punjabi Sahit Da Itahas (1850 Ton Hun Tak)

- CO 1: Paper of theatre not only motivated them to become an audience to meaningful theatre but also lured them to visit mesmerizing creation of Sh. GurbakshSingh Preetladi, PreetNagar from the times of undivided Punjab.
- CO 2: They will explore this Mecca of Punjabi Rangmanch (theatre) and explore the literature more after visiting BalrajSahni open air theatre.
- CO 3: They able to learn how they will survive in the fast changing society with different values and systems.

Name of Programme: B.A. with Elective Punjabi

Course Outcomes

Semester-I

Paper: Elective Punjabi

- CO 1: Students will learn about the moral value of our society with references of Biography.
- CO 2: Students will also learn about the sound-planning of phonetics.
- CO 3: Students will gain the cultural knowledge.

Semester-II

Paper: Elective Punjabi

- CO 1: History of Punjabi literature gives them a holistic approach towards the era in which any work has been imbibed by the literary artist.
- CO 2: It will provide political, social, economic as well as cultural insight into the work in literature over the period of time.
- CO 3: Students will learn the ways of writing business letter like sales letter, complaint letter and inquiry letter.

Semester-III

Paper: Elective Punjabi

- CO 1: Student will learn about medieval history of Punjabi literature, its origin and different phases.
- CO 2: Students get knowledge about prominent writers of Punjabi short story and their ideology about the changing scenario of Punjabi in 21st century.
- CO 3: They become able to learn how the empowered women facing many challenges in their successful lives.

Semester-IV

Paper: Elective Punjabi

- CO 1: Students become able to learn about different poetic genre.
- CO 2: Understand about ChandiDi War and semi historical Nadir Shah Di War.
- CO 3: Learn about richness of Sufi poetry and its influence on other Punjabi literary traditions.
- CO 4: Study PunjabiKissa a genre of romantic tragedy.
- CO 5: Learn heroic ballades known as war, enjoy a rich tradition in Punjab and causes of origin.

Semester-V

Paper: Elective Punjabi

- CO 1: Students will enrich knowledge by studying Gurmat Kav, Sufi Kav, War Kav and Kissa Kav.
- CO 2: This Poetry inculcates the strong moral values, ethics and Indian culture in students.
- CO 3: Students come to know about problems and challenges of Diaspora.
- CO 4: They study and understand the reasons of increasing curiosity among youth to move and settle abroad.
- CO 5: Chandan De Ohleplay depicts Punjab culture, heritage and status of women in Punjab.

Semester-VI

Paper: Elective Punjabi

- CO 1: Social Scenario of Medieval period
- CO 2: History of Punjabi literature from 9th Century to 16th century
- CO 3: Students can learn and come to know regarding trends & ideology of classic Punjabi poets.
- CO 4: Students learn basic concept of literature
- CO 5: Sahitte Samaj, Sahitte Shaksiyat topics are beneficial for students to learn literary terms more deeply.
- CO 6: Emphasis on the text with critical observations.

Name of Programme: BSc.IT, B.Voc, BFA, BDMM (All Professional Classes)

Course Outcomes- General Punjabi

Semester-I

Paper: General Punjabi (Professional Classes)

- CO 1: Writing skills of the students will be enhanced.
- CO 2: Students will be encouraged to take part in social and political activities.
- CO 3: They will understand the significance of Punjabi language.
- CO 4: Punjabi language will be promoted among the students.

Semester-II

Paper: General Punjabi (Professional Classes)

- CO 1: Students will start writing in Punjabi language.
- CO 2: Student will pay attention towards correct and pure Punjabi writing.
- CO 3: Student will learn grammatical rules.

Name of Programme: (B.A./BSc./ B.Com/BBA/ B.Voc/BCA/BFA)

Course Outcomes- Basic Punjabi

Semester-I

Paper: Basic Punjabi

- CO 1: Students will learn about days of week, name of months and name of season in Punjabi language
- CO 2: They will learn to write and read counting from one to hundred in Punjabi.
- CO 3: Students will learn vocabulary words of Punjabi language used in daily routine.

Semester-II

Paper: Basic Punjabi

- CO 1: Students will learn writing formal and informal letters and will understand various proverbs and idioms
- CO 2: Through proverbs and idioms they will learn about richness of Punjabi literature.
- CO 4: Student will become able to understand words and sentence formation.

Semester-III

Paper: Basic Punjabi

- CO 1: Students will gain the knowledge about different components of grammar.
CO 2: They will be able to write about current and new issues through paragraph writing
CO 3: Students will learn to communicate with each other in Punjabi language.

Department of Sanskrit

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: PuransardhshatkamtathaViyakaran

- CO 1: Students will study life sketch of BhagatPuran Singh from the book Puransardhshatkam.
CO 2: They will have detailed knowledge about active participation of BhagatPuran Singh in social welfare.
CO 3: They will get motivated by the charity work of Puran Singh for orphans, handicapped and poor people.
CO 4: They will understand his concern about environmental issues.
CO 5: They will get knowledge regarding proper pronunciation of language.

Semester-II

Paper: NeetishatkamtathaViyakaran

- CO 1: Students will study the different aspects regarding compassionate humanism from the book Neetishatkam.
CO 2: The concept of defining ignorant people on the basis of prescribed book will be taught to the students.
CO 3: They will understand the advantages of knowledge.
CO 4: They will be able to analyse the merits of silence and interaction with spiritually enlightened souls.
CO 5: The Grammatical features of different word forms will be taught to them.

Semester-III

Paper: Swapanvasvdattam by BhasatathaViyakaran

- CO 1: Students will study life fiction based natak- Swapanvasvdattam by Bhasa.
CO 2: They will get knowledge regarding hermitage way of life.
CO 3: Respect for Women will be taught to students through the natak.
CO 4: They will understand the correct articulation of words through language.

Semester-IV

Paper: Shrimadbhagvad Gita- Fourth ChaptertathaViyakaran

- CO 1: Students will be taught about eternal principles of Karma Theory.
CO 2: They will understand the objective of Lord's incarnation on earth.
CO 3: They will acquire knowledge of Karma, Vikrama and Akarma.
CO 4: They will learn about different types of Yajnas.
CO 5: They will be made aware regarding source for the attainment of knowledge.
CO 6: Grammar will help them in reading the language properly.
CO 7: They will learn the bilingual translation from Hindi to Sanskrit.

Semester-V

Paper: Labdh-Pranash (Panchtantra)

- CO 1: Narrative literature (Katha Sahitya) will be discussed with the students.
CO 2: Depiction of Ethical Moral values through allegory will be discussed.
CO 3: The students will be imparted knowledge of four Vedas.
CO 4: Use of practical words in Sanskrit will be discussed.

Semester-VI

Paper: Shrimadbhagvad Gita- Second Chapter tathaViyakaran

- CO 1: Students will get knowledge about nature of selfless karmas.
CO 3: They will be able to understand the Importance of maintaining balance in life.
CO 4: They will be able to analyse mysticism of soul and the ultimate God.
CO 5: They will be able to understand the definition of a stable soul.
CO 6: They will be acquainted with knowledge of modern Sanskrit through various books of different scholars.
CO 7: They will learn to write essays in Sanskrit.

Department of Music Vocal

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: Music Vocal (Theory)

- CO 1: Students would be able to know about their basic instrument Tanpura, its parts, tuning and utility. They will also learn basic terms of music.
CO 2: Study the biographies of medieval and present music masters. At the same time they would be acquainted with folk tradition of Punjab.
CO 3: Analyse the description of detailed and non- detailed ragas and talas with notations.
CO 4: To know about the rich tradition of Gurmatangeet and their technical terminology.

Semester-I

Paper: Music Vocal (Practical)

- CO 1: Students would be able to study 3 ragas in detail along with comparative study of three non-detailed ragas.
CO 2: Learn Sargam-geet and playing of harmonium based on Bilawalthaat.
CO 3: Learns the ekgun and dugun of two basic talas. At the same time they would also get a chance to imbibe the folk tradition of Punjab.

Semester-II

Paper: Music Vocal (Theory)

- CO 1: Students would be able to know about the history of Indian music during Vedic period. At the same time the students would learn about the basic musical terms of Indian music.
CO 2: Study the biographies of two founder musicians/ musicologist of the modern music education system. At the same time the students would get an analytical account of time theory of Hindustani music.
CO 3: Analyze the description of detailed and non- detailed ragas and talas with notations.
CO 4: To know about the contribution of Bhai Mardana Ji towards Gurmat sangeet and technical terminology of Gurmat sangeet prabandh.

Semester-II

Paper: Music Vocal (Practical)

- CO 1: Students would be able to study three ragas in detail along with comparative study of three non-detailed ragas. At the same time the students would be introduced to a different style of classical singing i.e. Vilambit Khayal.
- CO 2: Learn Shabad in prescribed ragas and playing Alankaars on harmonium based on Kalyan, Kafi and Asawarthaat.
- CO 3: Learn the ekgun and dugun of two talas on hand and two talas on tabla in addition. At the same time the students would also get a chance to imbibe the folk tradition of Punjab i.e. Suhag.

Semester-III

Paper: Music Vocal (Theory)

- CO 1: Students would be able to know about the history of Indian music from 14th to 17th century. At the same time the students would learn about some musical terms of Indian music.
- CO 2: Study about most important instrument Tanpura, its tuning methods and the study of tones and over tones of it. Besides this, the students would study the various types of taans.
- CO 3: Analyse the description of detailed and non-detailed ragas and talas with notations.
- CO 4: Study the biographies and contribution of three renowned vocalist of 20th century towards Indian classical music. At the same time the students would know kirtanchownkies of Gurmatsangeet.

Semester-III

Paper: Music Vocal (Practical)

- CO 1: Students would be able to study three ragas in detail along with comparative study of three non-detailed ragas. At the same time the students would learn VilambitKhayal andDhrupad with ekgun, dugunlaykari in prescribed ragas.
- CO 2: Learn the ekgun and dugun of two talas on hand and one taal on tabla in addition. At the same time the students would also get a chance to learn one Lakshan-geet in prescribed raga.
- CO 3: Play Punjabi folk song and alankaars on harmonium based on Kafithaat.

Semester-IV

Paper: Music Vocal (Theory)

- CO 1: Through this course Students would be able to develop their knowledge about Khayal singing style and some other singing forms of Indian classical music.
- CO 2: Learn the methods of formations of 484 ragas from one thaat guided by Pt. Vyankatmakhi. Besides this the students would go through the salient features of ancient ten raga- lakhshan.
- CO 3: Analyse the description of detailed and non-detailed ragas and talas with notations.
- CO 4: Study the biography of three renowned musicians of 20th century. They would study the merits and demerits of a singer. At the same time the students would analyze the folk singing styles of Gurmatsangeet.

Semester-IV

Paper: Music Vocal (Practical)

- CO 1: Students would be able to study three ragas in detail along with comparative study of three non-detailed ragas. At the same time the students would learn VilambitKhayal, DrutKhayal and one Tarana in prescribed ragas.
- CO 2: Learn the ekgun and dugun of two talas on hand and one taal on tabla in addition. At the same time the students would also get a chance to learn one Lakshan-geet in any prescribed raga.
- CO 3: Play cinematic song, national anthem and alankaars on harmonium based on Kafithaat.

Semester-V

Paper: Music Vocal (Theory)

- CO 1: Students would be able to know about the globalization of Indian music. At the same time they would study the merits and demerits of Indian notation system.
- CO 2: Study about light classical along with Chaturang and folk music of Punjab.
- CO 3: Analyse the description of detailed and non-detailed ragas and talas with notations.
- CO 4: Study about voice culture, stage performance and relation of music with yoga.
- CO 5: Study biography of one renowned folk singer of Punjab and two classical music scholars of India. At the same time the students would get knowledge about classical based singing styles of Gurmat sangeet.

Semester-V

Paper: Music Vocal (Practical)

- CO 1: Students would be able to study three ragas in detail along with comparative study of three non-detailed ragas. At the same time the students would learn VilambitKhayal, DrutKhayal, Tirvat/Chaturang in prescribed ragas.
- CO 2: Learn the ekgun and dugun of two talas on hand and one taal on tabla in addition. At the same time the students would also get a chance to learn one gazal.
- CO 3: Play alankaars on harmonium based on Asawarithaat.

Semester-VI

Paper: Music Vocal (Theory)

- CO 1: Students would be able to know about the historical development of Indian music of modern period. At the same time they would develop their knowledge about ghranas of Khayal singing and some singing forms of Indian classical music.
- CO 2: Analyse the description of detailed and non-detailed ragas and talas with notations.
- CO 3: Learn the methods of formations of 72 thaats of south Indian music guided by Pt. Vyankatmakhi. At the same time students would know about the interrelation of raga and ras, music and literature.
- CO 4: Study the biographies of three renowned music scholars and musicians of 20th century. They would also study the devotional impact of music for human life. At the same time the student would study about the contribution of great 'Saint Soldier' Sri Guru Gobind Singh Ji towards the tradition of Gurmat sangeet.

Semester-VI

Paper: Music Vocal (Practical)

- CO 1: Students would be able to study three ragas in detail along with comparative study of three non-detailed ragas. At the same time the students would learn Vilambit Khayal, Drut Khayal, one Dhamar and one Shabad/Bhajan in prescribed ragas.
- CO 2: Learn the ekgun and dugun of two talas on hand and one taal on tabla in addition. At the same time the students would also get a chance to learn one Lakshan-geet in any prescribed raga.
- CO 3: Play one cinematic song and five alankaars on harmonium based on Khmaajthaat.

Department of Music Instrumental

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester- I

Paper: Music Instrumental Theory & Practical

- CO 1: Music has always played a major role in society. It exalts the human spirit and enhances the quality of life.

- CO 2: One fundamental purpose of education is to transmit our cultural heritage and music is a powerful means for communicating that message.
- CO 3: Demonstrate competence in musicianship, to include: aural skills and knowledge and application of music theory.
- CO 4: Demonstrate competence in musical performance on his/her primary instrument with particular emphasis on technical precision.
- CO 5: Demonstrate competence in basic instrument playing skills.
- CO 6: Exhibit knowledge of instructional methods as they pertain to choral, instrumental and general music education.
- CO 7: Act as a means for enhancing self-esteem, respect for others and good citizenship.
- CO 8: Exhibit knowledge of current issues and trends in music education.
- CO 9: Music uses one of the most powerful systems which can be used for the development of critical thinking skills in all students.
- CO 10: Students will demonstrate an understanding of career options related to their area of specialization.

Semester- II

Paper: Music Instrumental

Theory & Practical

- CO 1: Demonstrate competence in musicianship to include: aural skills, knowledge and application of music theory.
- CO 2: Demonstrate competence in musical performance on his/her primary instrument with particular emphasis on technical precision.
- CO 3: Demonstrate competence in basic instrument playing skills.
- CO 4: Exhibit knowledge of instructional methods as they pertain to choral, instrumental and general music education.
- CO 5: Act as a means for enhancing self-esteem, respect for others and good citizenship.

Semester- III

Paper: Music Instrumental Theory & Practical

- CO 1: Students will demonstrate the understanding and use of public performance as a means for engaging communities, creating cultural awareness and providing ethical leadership.
- CO 2: Students will be able to perform as soloists, ensemble members, chamber musicians at appropriate levels for entering graduate music study and for teaching.
- CO 3: Students will be able to create, analyse and synthesize music as a means of supporting developing careers in music teaching and/or performance (Theory and Musicianship).
- CO 4: Students will be able to demonstrate teaching skills for individual studio and group settings for teaching and audience education purposes (Pedagogy).
- CO 5: Describe the importance of a disciplined practice routine for musical success.

Semester- IV

Paper: Music Instrumental Theory & Practical

- CO 1: Read and perform music notation at an appropriate level.
- CO 2: Demonstrate proper care and maintenance of their instrument.
- CO 3: Demonstrate accurate tuning process for their instrument.
- CO 4: Describe how to communicate musical ideas to performers.
- CO 5: Demonstrate correct posture and body position required for instrument playing.
- CO 6: Exhibit knowledge of instructional methods as they pertain to choral, instrumental and general music education.
- CO 7: Act as a means for enhancing self-esteem, respect for others and good citizenship.
- CO 8: Exhibit knowledge of current issues and trends in music education.

- CO 9: Music uses one of the most powerful systems which can be used for the development of critical thinking skills in all students.
- CO 10: Students will demonstrate an understanding of career options related to their area of specialization.

Semester- V

Paper: Music Instrumental Theory & Practical

- CO 1: Demonstrate proper rehearsal and performance etiquette.
- CO 2: Describe the traditional function of their instrument in the band or orchestra.
- CO 3: Demonstrate mastery of the following major scales - (concert pitch) Band - C, F, Bb, Eb, Ab, Chromatic; Orchestra - D, G, C, F.
- CO 4: Performance skills appropriate to the student's needs and interests including competence in sight reading and realizing a variety of musical styles.
- CO 5: Demonstrate professional competence in performance including technical mastery, sight-reading and interpretive skills and artistic self-expression.
- CO 6: Students will demonstrate the application of knowledge related to the history of music including various time periods, historical figures, styles and genres in musical traditions.
- CO 7: Music has always played a major role in society. It exalts the human spirit and enhances the quality of life.
- CO 8: One fundamental purpose of education is to transmit our cultural heritage and music is a powerful means for communicating that message.
- CO 9: Demonstrate competence in musicianship, to include: aural skills, knowledge and application of music theory.
- CO 10: Demonstrate competence in musical performance on his/her primary instrument with particular emphasis on technical precision.
- CO 11: Demonstrate competence in basic instrument playing skills.
- CO 12: Exhibit knowledge of instructional methods as they pertain to choral, instrumental and general music education.
- CO 13: Act as a means for enhancing self-esteem, respect for others and good citizenship.
- CO 14: Exhibit knowledge of current issues and trends in music education.
- CO 15: Music uses one of the most powerful systems which can be used for the development of critical thinking skills in all students.
- CO 16: Students will demonstrate an understanding of career options related to their area of specialization.

Semester- VI

Paper: Music Instrumental Theory & Practical

- CO 1: Demonstrate competence in musicianship, to include: aural skills, knowledge and application of music theory.
- CO 2: Demonstrate competence in musical performance on his/her primary instrument with particular emphasis on technical precision.
- CO 3: Demonstrate competence in basic instrument playing skills.
- CO 4: Music has always played a major role in society. It exalts the human spirit and enhances the quality of life.
- CO 5: One fundamental purpose of education is to transmit our cultural heritage and music is a powerful means for communicating that message.
- CO 6: Demonstrate competence in musicianship, to include: aural skills, knowledge and application of music theory.
- CO 7: Demonstrate competence in musical performance on his/her primary instrument with particular emphasis on technical precision.

- CO 8: Students will demonstrate the understanding and use of public performance as a means for engaging communities, creating cultural awareness and providing ethical leadership.
- CO 9: Students will be able to perform as soloists, ensemble members, chamber musicians at appropriate levels for entering graduate music study and for teaching.
- CO 10: Students will be able to create, analyse and synthesize music as a means of supporting developing careers in music teaching and/or performance (Theory and Musicianship).

Department of Sociology

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: Sociology

- CO 1: It gives better idea and clarity about the basic concepts on which any society is based.
- CO 2: Students get the knowledge about the relations that already exist.
- CO 3: They learn about the basic rules and regulations of the society by following which they could gain respect and status in their own society.
- CO 4: The social structure becomes visible to the students which are hidden to other layman eyes.

Semester-II

Paper: Sociology

- CO 1: Students get better understanding of the processes that they have always been part of like the process of Socialization.
- CO 2: Practical functioning of the culture and society becomes crystal clear to the students as residents of the society.
- CO 3: They could identify the agencies through which a society controls its participants and this helps them in better working to survive.
- CO 4: They get to recognize the different dimensions present in any society.

Semester-III

Paper: Sociology

- CO 1: Students understand the social institutions in their deeper aspects. Relations, kinship, its types, rules and regulations - all are studied in such a way that they could observe everything more clearly in their practical life.
- CO 2: They get to study various forms of society and its structures which let them have a clear sight of society in reality.
- CO 3: This paper makes them more practical in getting knowledge about social system.

Semester-IV

Paper: Sociology

- CO 1: This paper gives insight into the journey of social development.
- CO 2: Students witness the history of society; how a society evolves and the processes through which a society passes through different phases.
- CO 3: It keeps a tally of progress of Indian society clearly.

Semester-V

Paper: Sociology

- CO 1: This paper is purely based on the thoughts of eminent Sociologists who have played significant role in developing Sociology as a separate subject.
- CO 2: It gives brief account of various ideologies prominent in different societies and causes changes - peaceful or violent; progressive or depressive.

Semester-VI

Paper: Sociology

- CO 1: As students are tend to move ahead for Masters level degree, this paper prepares them for upcoming prospects of research in their respective fields.
- CO 2: It gives deep and detailed information about guidelines, procedure, means and modes required for any social researcher to conduct are search.
- CO 3: The paper serves as a pre-research mini guide to any student who wishes to pursue her higher studies.

Department of History

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: Ancient Indian History

After completing the course on Ancient Indian History, the student will be able to learn.

- CO 1: How, when and where people first developed cultures. In terms of evolution, how they evolved from a primitive to a civilized man.
- CO 2: Analyse the relationship in terms of society, economy, language and religion between past and present.
- CO 3: To understand various aspects of architectural styles, literary writings and cultural facets of the ancient society.
- CO 4: Understand the basic principles of administration in ancient India and study them in relevance to the contemporary times.
- CO 5: Overall the student will study various aspects of Ancient Indian History from the Indus Valley Civilization to Vardhanas.

Semester-II

Paper: Medieval History of India (1000-1707 A.D)

Medieval India refers to a long period of History of Indian Subcontinent between Ancient and Modern period. After completing the course on Medieval Indian History, the student will be able to learn.

- CO 1: The Rajput's contribution in the Medieval History of India. Various developments in the field of art, language, culture and religion. Emergence of Bhakti and Sufi movements.
- CO 2: How early medieval period witnessed wars among regional kingdoms from North to South and late medieval period saw number of invasions by Mughals, Afghans and Turks.
- CO 3: Understand the transition of European traders who by the end of 15th century started doing trade and by 18th century were a formidable political force.
- CO 4: Analyse various administrative and cultural aspects of medieval India.

Semester-III

Paper: Modern Indian History (1707-1947A.D)

After the completion of the course the student will be able to learn.

- CO 1: Understand the political fabric of India around 18th century. How various dynasties and Kingdoms came in conflict with British.
- CO 2: Analyse how British transformed the economic, political and social fabric of India. Was this transformation through acts or otherwise.
- CO 3: The beginning of the freedom struggle in light of various movements starting from Swadeshi to Quit India Movement.
- CO 4: Understand the emergence of socialist and communist movements in India.
- CO 5: Saga of Partition and its consequences.

Semester-IV

Paper: History of Punjab (1469-1799A.D)

After the completion of the course the student will be able to learn.

- CO 1: Understand the advent of Sikhism in Punjab and contributions of 10 Gurus towards development of Sikh panth.
- CO 2: Analyse the role played by Banda Singh Bahdur and other brave Sikh generals in the Sikh History.
- CO 3: Study the emergence of Dal Khalsa and Misls. Also the character and contribution of Ranjit Singh.
- CO 4: Understand the political, social, economic, and religious conditions of Punjab and its comparative analyses with contemporary times.

Semester-V

Paper: World History

After the completion of the course the student will be able to learn.

- CO 1: Study of World History is the broadest and most comprehensive approach to the question of who we are as both, individual and members of the group.
- CO 2: Causes and impact of major revolutions of the world.
- CO 3: Evaluate the genesis and consequences of two world wars.
- CO 4: Analyse the emergence of political leadership in China and Japan.
- CO 5: Understand the emergence of NATO, Warsaw Pact, League of Nations and U.N and role of U.N in the Contemporary World.

Semester-VI

Paper: History of Punjab (1799-1966A.D)

After the completion of the course the student will be able to learn.

- CO 1: How Ranjit was able to establish a strong Lahore province and an efficient administration.
- CO 2: Emergence of various social reform movements and the role played by Punjabi's in the freedom struggle.
- CO 3: The saga of partition of Punjab and the rehabilitation process of the refugees.
- CO 4: Evolution of Punjabi suba in 1966.

Department of Physical Education

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: A Practical

- CO 1: Student taught regarding physical education and his importance in life.
- CO 2: Students also come to know about physical training and coaching.
- CO 3: They also taught about rules of athletics, 100m and shot put and volleyball and cricket.

Paper: B Practical

- CO 1: Students are taught about development of physical education and sports in India and about sports schemes like N.S.N.I.S., SAI.
- CO 2: They also taught about games like Olympic, Ancient, Modern, Commonwealth and Asian games.
- CO 3: They also taught about rules of athletics, 100m and shot put and volleyball and cricket.

Semester-II

Paper: A Practical

CO 1: Students are taught about systems of body like skeletal system, muscular system, digestive system, and about human cell or movement and joints of body.

CO 2: They are able to understand the rules of athletics, 100m race and long jump, hand ball and Kho-Kho,

Paper: B Practical

CO 1: Students are imparted knowledge about health education, personal hygiene and communicable diseases.

CO 2: They are also taught about rules of athletics, 100m race and long jump, hand ball and Kho-Kho

Semester-III

Paper: A Practical

CO 1: Students are taught about the effects of psychological factors on sports performance.

CO 2: They are able to understand the rules of athletics, 200m race, discuss throw, football and yoga.

Paper: B Practical

CO 1: Students are taught about sports and economy.

CO 2: They are able to understand the rules of athletics, 200m race, discuss throw, football and yoga.

Semester-IV

Paper: A Practical

CO 1: Students are taught about yoga and its importance and how yoga effects the body.

CO 2: They are able to understand the rules of athletics, 200m race, high jump, hockey and wrestling.

Paper: B Practical

CO 1: Students are imparted knowledge about body systems and sports injuries.

CO 2: They are able to understand the rules of athletics, 200m race, high jump, hockey and wrestling.

Semester-V

Paper: A Practical

CO 1: Students are made aware about recreation and its importance also they are taught about biomechanical laws.

CO 2: They are also taught about rules of athletics, 800m race, tripple jump, basketball and judo.

Paper: B (Practical)

CO 1: Students are taught about body postures and importance of warming up and cooling down in sports

CO 2: They learn the rules of athletics, 800m race, tripple jump, basketball and judo.

Semester-VI

Paper: A Practical

CO 1: Students will get knowledge about tournaments and how to draw fixture of tournaments.

CO 2: They learn the rules of athletics, 1500m race, javelin throw, kabaddi and badminton

Paper- B Practical

CO 1: Students will get knowledge about therapeutic exercises, joints, muscles, component of physical fitness.

CO 2: They are also taught about rules of athletics, 1500m race, javelin throw, kabaddi and badminton.

Name of Programme: B.P.E.S

Course Outcomes

First Year

Paper: 1: Introduction of Physical education

CO 1: Students are taught regarding physical education and his importance in life.

CO 2: They come to know about history of physical education.

CO 3: They get knowledge about modern trends of physical education.

Paper: 2: General Science

CO 1: Students are taught about living and non-living things, animal and plants reproductions.

CO 2: They will understand the basic concepts, sources and importance of air and water.

CO 3: They will learn about biomechanics.

CO 4: They are made aware about metals, non-metals, heat and light.

CO 5: They understand the importance of various nutritional aspects of the diet.

Paper: 3: Anatomy and physiology

CO 1: Students are taught about systems of body and its functions.

CO 2: They get knowledge about joints, their movements and different bones and their functions.

CO 3: They study about human systems and function

CO 4: They become able to understand the importance of anatomy and physiology in physical education.

Paper: 4: Health Education

CO 1: Students learn about health education and personal hygiene.

CO 2: They are taught about removal of body waste.

CO 3: They study about physic-medical examination.

CO 4: They get knowledge about community health service.

Paper: 5: Social Science

CO 1: Students are taught about meaning of civics, history, political science, economics, and sociology.

CO 2: They learn about physical features of India.

CO 3: They understand regional division of India.

CO 4: They study the conquests and annexations of Maharaja Ranjit Singh

Paper: 6: Practical of Athletics

CO 1: Students are taught about rules of athletics events -: 1 sprints, 100mt. hurdles, long jump, high jump, shot put.

Paper: 7: Practical of games

CO 1: Students are taught about rules of volley ball, hockey, Kho-Kho, wrestling, judo and badminton.

Paper: 8: Practical on skill in formal activity

CO 1: Students are taught about rhythmic gymnastics, drill and marching.

Department of Economics

B.A. (Bachelor of Arts)

Semester- I

Paper: Micro Economics

The students will be able to:

CO 1: understand the concepts of opportunity cost, trade-offs, benefits of exchange and important terms and principles of single entities.

CO 2: gain the knowledge of laws of supply and demand and producers' equilibrium; and apply the supply and demand model to analyse responses of markets.

CO 3: apply supply and demand analysis to examine the impact of government regulations.

CO 4: calculate price elasticity of demand and other elasticities.

- CO 5: understand the concept of producer choice, including cost, revenue and break-even analysis.
- CO 6: compare and contrast market structures, including perfect competition, monopoly and monopolistic competition.
- CO 7: apply microeconomic principles and models to address market failures and to describe policy matters.
- CO 8: gain the knowledge of marginal productivity theory of distribution, theory of wages, identify different types of rent and grasp different theories of rent, interest and profits.

Semester-II

Paper: Indian Economy

The students will be able to:

- CO 1: know the development process in India after independence.
- CO 2: identify and analyse current issues in economic scenario.
- CO 3: develop ideas of the basic characteristics of Indian economy, its potential and different resources.
- CO 4: develop a perspective on the different economic problems in India.
- CO 5: understand the role of the Indian Economy in the global context.
- CO 6: understand the importance, causes and impact of population growth and its distribution, translate and relate them with economic development.
- CO 7: 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 on-going planning and economic reforms taken by the government.
- CO 8: understand agriculture as the foundation of economic growth, analyse the progress and changing nature of agricultural sector and its contribution to the economy as a whole.
- CO 9: identify the role and contribution of secondary and tertiary sectors in the growth process of the economy.

Semester-III

Paper: Macro Economics

- CO 1: In Macro Economics, students study about maximum level of income and employment in a country.
- CO 2: Students learn about inflation and deflation.
- CO 3: They learn about recession.
- CO 4: Students know about national income and collection, organization and analysis of data.
- CO 5: Students study about inflation and unemployment.

Semester- IV

Paper: International Economics and Public Finance

- CO 1: In this subject students study about international trade and its benefits for mankind.
- CO 2: They study about gains from trade and economic development due to trade.
- CO 3: They study about free trade and protection policy.
- CO 4: They learn about WTO and GATT.
- CO 5: They get knowledge about nature and scope of public finance and Taxes.

Semester-V

Paper: Economics of Development

The students will be able to:

- CO 1: know about central themes, essential tools and concepts of development economics.
- CO 2: understand what makes underdevelopment persist and what helps development succeed.
- CO 3: understand the difference between growth and development.
- CO 4: analyse contemporary economic development issues.

- CO5: analyse major growth theories, the measurement of inequality, significance of agriculture in developing countries, poverty and population issues facing the world, capital formation, technical progress, international trade and importance of foreign aid.
- CO 6: analyse empirical evidence on the patterns of economic development.
- CO 7: engage in critical thinking through the comparative assessment of economic development models and policy frameworks.
- CO 8: have the knowledge and skills to evaluate economic problems of developing countries and to effectively participate in the contemporary policy debate on development priorities and policy reforms in these countries.

Semester-VI

Paper: Quantitative Methods for Economists

Students will be able to understand:

- CO 1: the concept of sets, illustrate and apply basic set operations.
- CO 2: the rules for calculating derivatives, uses and application in calculating inter-relationship among total, marginal and average cost and revenue, calculate maxima, minima, elasticity, decide the optimal level of production for a firm.
- CO 3: the concepts and use of functions, limits and continuity.
- CO 4: the matrix operation, minors, cofactors, inverse of a matrix, matrix method, Cramer's rule to solve system of equations.
- CO 5: the concept of statistical averages, use and apply measures of central tendency, dispersion, skewness and kurtosis.
- CO 6: the concept of correlation, analyse and interpret covariance and correlation coefficient.
- CO 7: use of regression analysis to analyse the underlying relationships between the variables and estimate regression coefficients.
- CO 8: the components of time series and apply time series analysis.
- CO 9: the different types of index numbers and calculate index numbers.
- CO 10: the use and calculation of interpolation and extrapolation.

Name of Programme: B.A. / B.Sc. Economics

Course Outcomes

Quantitative Techniques

Semester-II

Paper: Quantitative Techniques-II

Students will be able to:

- CO 1: understand the role, scope and functions of quantitative techniques.
- CO 2: understand basic statistical concepts such as data collection, classification, statistical series and tabular, diagrammatic and graphical representation of data.
- CO 3: describe the concept of statistical averages, use and apply measures of central tendency, dispersion, skewness and kurtosis.
- CO 4: grasp the concept of correlation, analyse and interpret covariance and correlation coefficient.
- CO 5: know the use of regression analysis to analyse the underlying relationships between the variables and estimate regression coefficients.
- CO 6: Describe the components of time series and apply time series analysis in business scenarios.
- CO 7: Know about the different types of index numbers and calculate index numbers.

Semester- III

Paper: Quantitative Techniques-III

Students will be able to:

- CO 1: understand Maxima and Minima of function.
- CO 2: apply Maxima and Minima to solve various economic applications.
- CO 3: apply integration in Consumer surplus and Producer surplus.
- CO 4: understand the concept of matrices.
- CO 5: solve Simultaneous system of equations using Cramer's rule and Matrix Inverse method.
- CO 6: understand the linear programming using Graphic and Simplex method.
- CO 7: understand the concept of Input output model.

Semester- IV

Paper: Quantitative Techniques-IV

Students will be able to:

- CO 1: understand Multiple Linear Regression
- CO 2: understand Partial and Multiple Correlation.
- CO 3: understand Non-Linear Regression and able to estimate the fitting of various growth curves.
- CO 4: solve applications of probability based on addition, multiplication and Bayes theorem of probability.
- CO 5: understand concept of Random Variable, Probability Mass Function and Density Function, Mathematical Expectation (meaning and properties), Moments, Moment Generating Function and Characteristic Function.
- CO 6: understand Theoretical Probability Distributions: Binomial, Poisson, Normal, Beta and Gamma distributions.
- CO 7: know about various concepts of sampling.

Semester-V

Paper: Quantitative Techniques-V

Students will be able to:

- CO 1: understand and apply probability theory and theoretical probability distributions in economic applications.
- CO 2: use sample statistics to test hypothesis regarding population and estimate the population parameters and to make judgments about the population.
- CO 3: present an economic argument in quantitative terms and develop ability to solve it.

Semester-VI

Paper: Quantitative Techniques-VI

Students will be able to:

- CO1: develop the understanding of regression analysis, detection of various problems associated with it such as autocorrelation, multicollinearity, heteroscedasticity along with their consequences and remedies.
- CO2: apply econometric methods like autoregressive distributed lag models to different economic theories.
- CO3: understand the concept of dummy variable and its application in different economic situations.

Name of Programme: B.A. / BSc. Economics with Honours

III

Semester-

Paper: I Money and Banking

- CO 1: In this subject, students learn about Functions of money.
- CO 2: They know about price rise or fall i.e. inflation, deflation.
- CO 3: Students study about use of monetary policy to bring stability in the economy.
- CO 4: They study about functions of central bank.
- CO 5: They also learn about commercial banks.

Semester-IV

Paper: IV International Economics

- CO 1: By studying international trade, students study about internal trade.
- CO 2: Students learn about growth of trade.
- CO 3: They get knowledge about terms of trade.
- CO 4: Students study about balance of payments.

Semester- V

Paper: II Public Finance

Students will be able to:

- CO 1: understand the sources of public finance both public and private.
- CO 2: understand the classification, advantages, effects and knowledge of public expenditures.
- CO 3: understand the causes of growing public expenditures for various programmes and policies within and outside the country.
- CO 4: understand theories of public revenue.
- CO 5: understand the burden, benefits and distribution of various types of taxes among various sections of people.
- CO 6: understand the concept of good and bad tax system.
- CO 7: know about the needs of public borrowing.
- CO 8: understand the role, burden and management of public debt.
- CO 9: understand incidence and impact of taxation.

Semester- VI

Paper: VI Economics of Agriculture

Students will be able to:

- CO 1: realize the need to exploit and utilize through development and improvement of production techniques.
- CO 2: make them aware and understand about limited resources available in the economy, about availability of rich natural endowments to achieve sustainable agricultural development.
- CO 3: understand inter dependence of agriculture and industry
- CO 4: understand different resources in agriculture and their characteristics.
- CO 5: gain knowledge of the causes of regional variations in productivity and production, social and economic inequality, size of land holdings and lack of quality inputs etc. and suggest appropriate measures for the whole economy.
- CO 6: understand recent agriculture policy of India.

Name of Programme: B.Com.

Course Outcomes

Semester- I

Paper: BCG-106 Business Statistics

Students will be able to:

CO1: understand meaning of statistics, basic statistical concepts and relevance of statistics in business.

CO 2: understand, calculate and interpret descriptive statistics such as measures of central tendency, dispersion, asymmetry, correlation, regression analysis, time series analysis and index numbers.

CO 3: understand and apply probability theory and theoretical probability distributions in business.

CO 4: develop understanding of various types of probability and non-probability sampling techniques

Semester- II

Paper: BCG-205 Business Economics

Students will be able to:

CO 1: understand the concept of demand, law of demand along with its exceptions.

CO 2: calculate elasticity of demand under different market conditions and develop knowledge regarding its significance in business, trade and government policies.

CO 3: understand and determine consumers' equilibrium, consumers surplus.

CO 4: understand that how markets work to allocate resources and the optimal individual decision-making that underlies market outcomes.

CO5: identify various market structures and discuss their implications for resource allocation.

Name of Programme: BBA

Semester-I

Paper: BBA-105 Managerial Economics-I

CO 1: Students study about definition of economics and its nature and scope.

CO 2: They get knowledge about law of demand and the concept of elasticity of demand.

CO 3: They study about methods of measurement of elasticity and cost curves.

CO 4: They get knowledge about Revenue curves.

CO 5: Students study and learn about different market forms e.g. perfect competition, monopoly etc.

Semester-II

Paper: BBA-205 Managerial Economics-II

CO 1: By studying this subject students understand nature and scope of macroeconomics.

CO 2: They learn about consumption function and psychological law of consumption

CO 3: Students study about investment and its types.

CO 4: Students learn about national income and the methods of its measurement and limitations etc.

Semester-III

Paper: BBA-303 Statistics for Business

Students will be able to:

CO 1: demonstrate the role, scope and functions of statistics in the field of business/industry.

CO 2: illustrate matrix operations, determinants, minors, cofactors, inverse of a matrix, matrix method, Cramer's rule to solve system of equations and rank of a matrix.

CO 3: understand basic statistical concepts such as data collection, classification, statistical series, tabular, diagrammatic and graphical representation of data.

CO 4: describe the concept of statistical averages, use and apply measures of central tendency, dispersion skewness and kurtosis.

CO 5: grasp the concept of correlation, analyze and interpret covariance and correlation coefficient.

- CO 6: use regression analysis to analyse the underlying relationships between the variables and estimate regression coefficients.
- CO 7: describe the components of time series, apply time series analysis in business scenarios.
- CO 8: know about the different types of index numbers and calculate index numbers.
- CO 9: understand the different types of probability and non-probability sampling.
- CO 10: demonstrate the basic concepts of probability, theoretical distributions, probability theorems, solve probability problems by applying probability concepts.

Name of Programme: B.Voc. (Banking and Financial Services)

Course Outcomes

Semester–II

Paper: BVC-203 Managerial Economics

Students will be able to:

- CO 1: understand the basic concepts, nature and scope of managerial economics.
- CO 2: understand fundamental laws of consumption- Law of Diminishing Marginal Utility and Law of Equi-Marginal Utility.
- CO 3: understand the meaning, determinants, exceptions, kinds of demand, change in demand and its importance.
- CO 4: understand the elasticity of demand, its meaning, types, degrees, methods of measuring, factors determining elasticity of demand and its importance.
- CO 5: understand the concept of indifference curve.
- CO 6: know about production function, economies and diseconomies of scale.
- CO 7: understand traditional and modern theory of costs.
- CO 8: understand different markets structure, their characteristics and short and long run equilibrium.
- CO 9: understand concept and various methods to measure national income.
- CO 10: understand the concept of consumption function
- CO 11: know about inflation its meaning, types, theories, causes, effects and control.

Name of Programme: B.Voc. (Banking and Financial Services)

Course Outcomes

Semester–III

Paper: BVC-301 Business Statistics

- CO 1: Students attain the knowledge about functions, scope and limitations of statistics.
- CO 2: They understand types of averages – Arithmetic Mean (Simple and Weighted), Median and Mode.
- CO 3: They understand the Measures of Dispersion.
- CO 4: Know about simple Correlation and Regression.
- CO 5: Understand both weighted and unweighted Index Numbers.
- CO 6: Estimate trends using graphical method, semi average method, moving averages method and method of least squares for linear path.
- CO 7: To solve simple applications of Probability based on addition and multiplication theorem of probability.

Name of Programme: B.Sc. (Bio- Technology)

Course Outcomes

Semester- II

Paper: BT-5 Bioinformatics

Students will be able to:

- CO 1: understands the concept of measures of central tendency.
- CO 2: understand dispersion and its co-efficient, variance and covariance of data.
- CO 3: understand methods of correlation.
- CO 4: understand how to determine regression lines.
- CO 5: understand the basic concepts of probability, addition, multiplication and Bayes theorem and their application.
- CO 6: state hypotheses for a chi-square test of goodness-of-fit and for a chi-square test for association.
- CO 7: calculate Chi-square test of goodness of fit and Chi-square test for association.

Name of Programme: M.Com.

Course Outcomes

Semester- I

Paper: MC-102 Statistical Analysis for Business

Students will be able to:

- CO 1: understand process of collection of primary and secondary data, and their sources.
- CO 2: develop understanding of various types of probability and non-probability sampling techniques, and the importance of randomization.
- CO 3: understand and apply probability theory and theoretical probability distributions in business and research.
- CO 4: have adequate knowledge about designing questionnaire, conducting pilot survey and pre testing of questionnaire.
- CO 5: use sample statistics to test the hypothesis regarding population and estimate the population parameters and to make judgments about the population especially in business context.
- CO 6: select appropriate statistical techniques for summarizing, displaying, analysing and interpreting business data.
- CO7: conduct correlation analysis, assess its significance and critically analyse and interpret it.

Semester-I

Paper: MC-101 Managerial Economics

- CO 1: By studying this subject, students know about nature and scope of managerial economics.
- CO 2: They study about cost and Revenue curves.
- CO 3: Students study about utility analysis, ordinal analysis and revealed preference analysis.
- CO 4: Students are benefitted by studying about different market forms.
- CO 5: They learn about consumption, National income and inflation, CPI, WPI etc.

Semester-II

Paper: MC-203 Research Methodology

Students will be able to:

- CO 1: critically assess and select appropriate research problem, design and research process to achieve research objective.
- CO 2: assess critically various methods like literature study, case study, structured surveys, in depth interviews, focus group interviews.
- CO 3: have adequate knowledge on types of scales as well as measurement and scaling techniques.
- CO 4: understand process of collection, processing, editing of data.

- CO 5: calculate, present, and discuss descriptive and inferential statistics.
CO 6: understand, evaluate and apply multivariate analysis techniques such as regression analysis, factor analysis, discriminant and logistic analysis.

Name of Programme: M.Sc. (Fashion Designing)

Course Outcomes

Semester- III

Paper: Research Methodology

Students will be able to:

- CO 1: understand a general definition of research design.
CO 2: know why educational research is undertaken, and the beneficiaries that gain from research studies.
CO 3: identify the overall process of designing a research study from its inception to its report.
CO 4: be familiar with ethical issues in educational research.
CO 5: know the primary characteristics of quantitative research and qualitative research.
CO 6: identify a research problem stated in a study.
CO 7: be familiar with how to write a good introduction to a research study.
CO 8: be familiar with conducting a literature review.
CO 9: define the meaning of a variable, and identify independent and dependent variables.
CO 10: know about primary and secondary data, and the steps in the process of quantitative data collection.
CO 11: understand data processing and its problems.
CO 12: design a good quantitative purpose statement, research questions and hypotheses.
CO 13: know how to undertake measurement and scaling.
CO 14: understand sampling fundamentals and sampling designs.
CO 15: know the types of data analysis used in research studies and the interpretation of results.
CO 16: know how to conduct a statistical test of a hypothesis.
CO 17: know the conventions with good APA style for scholarly writing.

Name of Programme: M.Sc. (Bioinformatics)

Course Outcomes

Semester-I

Paper: Basic Bioinformatics

Students will be able to:

- CO 1: understand how to represent data using histogram, polygons and frequency curves.
CO 2: understands the concept of measures of central tendency mean, median and mode.
CO 3: understand dispersion and its co-efficient, variance of data.
CO 4: understand methods of correlation.
CO 5: understand how to determine regression lines.
CO 6: learn statistical sampling from population.
CO 7: understand the basic concepts of probability.
CO 8: understand addition, multiplication and Bayes theorem and their application.
CO 9: understand probability mass function, probability density function.
CO 10: understand the concepts of Binomial and Poisson distribution.
CO 11: state hypotheses for a Fischer test, Student t-test, ANOVA, chi-square goodness-of-fit and for a chi-square test for association.
CO 12: calculate and interpret Fischer test, Student's t-test, ANOVA and Chi-square test.

Name of Programme: M.A. Journalism and Mass Communication

Semester- II

Students will be able to:

- CO1: develop understanding on various kinds of research, objectives of doing research, research process, research designs and sampling in general as well as in case of journalism and media particularly.
- CO 2: critically assess and select appropriate research problem, design and research process to achieve research objective.
- CO 3: understand the concept and types of variable, scales as well as use of validity and reliability in research.
- CO 4: calculate, present, and discuss descriptive statistics.
- CO 5: develop understanding of various types of probability and non-probability sampling techniques.
- CO 6: understand types of qualitative data and practices involved in conducting qualitative research particularly in case of media.
- CO 7: develop scholarly writing skills for synopsis, research paper and report writing.

Name of Programme: Advance Diploma in Fashion Designing

Semester- IV

Paper: Export Import Management

Students will be able to:

- CO 1: identify the strategies and cases of export import business.
- CO 2: analyze procedures and processes in export import business.
- CO 3: communicate effectively using basic international business vocabulary with specific emphasis on terms associated with international trade and import export operations.
- CO 4: select between common modes of export in order to fit the business needs of exporting organizations.
- CO 5: identify sources of information on export restrictions associated with foreign shipping in order to facilitate export compliance for the exporting organization.
- CO 6: assessment of export opportunities and international markets analysis.
- CO 7: contacting and dealing efficiently and effectively within the environment of multinational cultures.
- CO 8: applying payment methods and financing in the area of exports.
- CO 9: acquainting with documents and logistics system in export and import.
- CO 10: developing export-marketing programs, product development, promotions, pricing and distribution.
- CO 11: acquiring knowledge in transportation, shipping and insurance methods in international trade.
- CO 12: developing commercial negotiation skills.
- CO 13: understanding conditions and merits of international trade agreements.

Department of Psychology

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I &II

Paper: Psychology

- CO 1: Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- CO 2: Students will understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.
- CO 3: Students will respect and use critical and creative thinking, skeptical inquiry and the scientific

approach to solve problems related to behavior and mental processes.

CO 4: Students will understand and apply psychological principles to personal, social, and organizational issues.

CO 5: Students will be able to weigh evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline.

CO 6: Students will recognize, understand, and respect the complexity of sociocultural and international diversity.

Semester-III &IV

Paper: Experimental Psychology

CO 1: Students will have the opportunity to develop a deep understanding and broad knowledge of the general theoretical and scientific principles of psychology.

CO 2: Students will acquire in-depth knowledge in specialized areas of their subject.

CO 3: They will have the opportunity to acquire and demonstrate bibliographic skills to search out information appropriate to a particular topic.

CO 4: They will have experience in compiling written reviews of key topics in psychology in which they will be expected to have knowledge, depth of understanding, and a critical appreciation of the strengths and weaknesses of theoretical claims and research evidence or conceptual argument.

CO 5: They will have the opportunity to discuss in detail aspects of research or enquiry.

Semester-V &VI

Paper: Abnormal Psychology

Upon successful completion, students will have the knowledge and skills and should be able to:

CO 1: identify and describe major terms and concepts in abnormal psychology.

CO 2: describe and apply major theories of abnormal psychology.

CO 3: describe the symptomatology associated with major mental disorders and apply to case examples.

CO 4: think critically about issues and changes in psychiatric nomenclature.

CO 5: think critically about ethical, legal, cultural and contemporary topics in abnormal psychology.

CO 6: demonstrate preliminary knowledge of the main empirically based approaches available to treat or manage the conditions covered in the course.

Name of Programme: B.A. Psychology with Honours

Course Outcomes

Semester-III

Paper: History and Schools of Psychology

After completing the course, the students will be able to:

CO 1: discuss the philosophical and scientific foundations of psychology.

CO 2: critically examine problems, questions, and assumptions of various schools of thought such as functionalism, psychoanalysis, behaviourism, and Gestalt, humanistic and experimental psychology.

CO 3: compare Eastern and Western philosophical and intellectual traditions from antiquity with contemporary thought on human relationships.

CO 4: describe the philosophical implications of mind-body interaction for psychology as a science.

CO 5: develop deeper understanding and insight into the origin and contents of various school of thoughts and the ability to critically analyse.

Semester-IV

Paper: Social Psychology

After completing the course, the students will be able to:

CO 1: demonstrate in an applied context a systematic understanding of the behaviour of the individual in social interaction.

- CO 2: examine critically the explanations for the occurrence of certain kinds of social behaviour.
CO 3: critically apply social psychological principles to social problems and issues.
CO 4: identify both theoretical and practical methodological issues central to social psychological research.

Semester-V

Paper: Psychological testing

- CO 1: The goal of this paper is to support students in building a thorough understanding of the development and use of psychological tests. This aim includes an understanding of the application of such tests in the education, counselling, and business sectors.
- CO 2: At the end of this course, students will be able to demonstrate knowledge:
- How psychological tests are developed.
 - How psychological tests are evaluated.
 - About the characteristics and purposes of the major psychological tests used in education, clinical and counselling practice, and business.
 - About ethics and laws pertaining to the use of psychological tests.

Semester-VI

Paper: Applied Psychology

- CO 1: To produce graduates with effective interpersonal skills who can work in a variety of practical settings.
- CO 2: To enable students to obtain the knowledge and skills necessary for immediate employment and/or graduate study in psychology and related areas.
- CO 3: To provide opportunities for students who wish to apply psychology training to employment in business and human service related organizations or to prepare for graduate programs in related areas.
- CO 4: Demonstrate foundational knowledge and comprehension of applied psychology subject matter through examination or learning portfolio.
- CO 5: Mentor students' by providing opportunity and instruction in basic and applied psychology through civic and community engagement, as well as allied health and service professions
- CO 6: Instill cooperative learning strategies that enable students to participate effectively in group projects and in circumstances surrounding employment

Name of Programme: B.Voc. (Mental Health Counselling)

Semester-I

Paper: Mental Health Counselling

- CO 1: Students will show knowledge and understanding of the clinical mental health counselling profession as well as the basics of legal and ethical practice.
- CO 2: They will acquire knowledge, awareness, and skills related to counselling work with diverse groups both nationally and internationally.
- CO 3: They will be able to demonstrate knowledge and skills related to building, maintaining, and utilizing counselling relationships to address mental health issues and meet client goals.
- CO 4: They will get knowledge and understanding of career development, assessment, and planning for clients.
- CO 5: They will become competent to show understanding and competency with group counselling.
- CO 6: They will understand and demonstrate competency with counselling assessments, including knowledge of types of assessments, statistical concepts, and the use of assessment tools.
- CO 7: They will study the significance of research in informing counselling practice, and demonstrate the

ability to critically evaluate available research to inform their own counselling work.

CO 8: They will become capable to understand the specific roles, settings, and practices related to clinical mental health counselling, including but not limited to diagnosis, treatment modalities, documentation, collaboration with other professionals, and advocacy.

CO 9: Learners will demonstrate skill in the assessment and treatment of clients in their clinical experiences of practicum and internship.

Paper: Techniques of Appraisal for Counselling

CO 1: Students will show knowledge and understanding of psychological testing, and psychological assessment along with the purpose.

CO 2: They will have knowledge on career assessment related to interest, personality and values.

CO 3: They will understand the various aspects of career development, assessment, and planning for clients.

CO 4: They will understand the purpose and uses of a variety of tests along with the limitations of testing and assessment.

CO 5: They will become capable to understand and demonstrate competency with counselling assessments, including knowledge of types of assessments, statistical concepts, and the use of assessment tools.

CO 6: They will study the development and use of psychological tests i.e. application of tests in education and counselling.

CO 7: They will understand the legal and ethical issues in psychological testing and internship.

Paper: Approaches to Counselling

CO 1: Students will become familiar with the major counselling approaches categorized as humanistic, experiential, learning/cognitive, and psychoanalytic/psychodynamic

CO 2: They will become able to critically examine different approaches to counselling and understanding of theoretical frameworks.

CO 3: They will understand the link between theory and practice and will be able to arrive at their own personal orientation to counselling.

CO 4: They will be able to demonstrate knowledge of the therapist's role and the values by which the therapist conducts counselling.

CO 5: They will study the core premises of psychodynamic therapy such as transference, countertransference, resistance, and interpret.

Semester-II

Paper: Child Psychopathology

CO 1: Detailed understanding of disorders seen in infancy, childhood and adolescence according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).

CO 2: Students will gain understanding of key principles relevant to conducting psychological assessments with children /adolescents and their families for formulation, diagnosis and treatment planning.

CO 3: Knowledge of theoretical frameworks for conceptualising child development and behaviour is developed while ensuring that students understand "normal" child development and the importance of taking a developmental perspective

CO 4: They will be able to describe the role of early experiences in shaping children's development and behaviour

CO 5: They will study possible diagnoses and differential diagnoses.

CO 6: They will learn to develop a comprehensive case formulation and treatment plan.

Paper: Counselling Applications

CO 1: Learners will develop knowledge of the core theoretical areas, major models, and basic techniques of counselling and psychology.

CO 2: Describe and demonstrate theories and methods of cognitive and personality assessment.

- CO 3: They will understand the link between theory and practice and arrive at their own personal orientation to counselling
- CO 4: Students will understand the philosophical underpinnings of the major counselling theories.
- CO 5: They will be able to identify primary intervention techniques of the major counselling theories.
- CO 6: Students will become familiar with counselling skills that are used across most forms of psychotherapy (e.g. self-disclosure; empathy; confrontation).
- CO 7: They will be able to identify the differences among 'following' (i.e., non-directive) counsellor responses.
- CO 8: They will be able to identify the differences among 'leading' (i.e., probes) counsellor responses.

Paper: Practicing Individual Counselling Skills and Techniques

- CO 1: Students develop an understanding of the historical development of the counselling profession and an applied understanding of counselling skills.
- CO 2: Students' self-awareness of the values, attitudes and biases is fundamental in the development of effective counselling skills.
- CO 3: Students will be able to understand the process of assessment and establishing the counselling relationship.
- CO 4: The counselling relationship is an important means of facilitating change and growth. Understanding of the stages of counselling provides a framework for practicing new skills. Students will learn how they can assist clients to achieve positive outcomes and increase their self-understanding.

Semester-III

Paper: Substance Abuse (Problem and Consequences)

- CO 1: Students will be able to identify sociological factors associated with alcohol and drug abuse.
- CO 2: They will study physiological/medical factors associated with substance abuse.
- CO 3: They will get knowledge regarding the impact of substance abuse on the community, family and individual.
- CO 4: They will be able to describe the term addiction and explain various theories of causation.
- CO 5: They will study the bio psychosocial assessment of client.
- CO 6: They will learn to assess and analyse the techniques used by professionals in the field of substance abuse.
- CO 7: Learners will become able to prepare a professional assessment plan.
- CO 8: They will study different theories related to etiology of addiction.
- CO 9: They will have understanding of medical and behavioural model of addiction.

Paper: Classification of Psychotropic Drugs and Their Treatment

- CO 1: Students will learn to distinguish the actions of psychoactive drugs as they affect the body.
- CO 2: They will develop deep understanding to types of drugs
- CO 3: They will have knowledge to define the routes of administration, methods of ingestion, tolerance, withdrawal and interactions of these drugs with other psychoactive and non-psychoactive drugs.
- CO 4: They will be able to evaluate the signs and symptoms associated with the different classifications of psychoactive chemicals.
- CO 5: They will study the concepts of use, misuse, abuse, dependence, withdrawal, and overdose/toxicity.
- CO 6: Learners will develop understanding of management and treatment of drug abused.

Paper: HIV/AIDS Counselling

- CO 1: Students will understand the basic facts of HIV and AIDS (means of transmission, types of tests, CD4 count, viral load.
- CO 2: They will study the social, behavioural, gender and cultural drivers of the HIV pandemic.
- CO 3: They will acquire knowledge regarding the contents of HIV pre- and HIV post-test counselling sessions.
- CO 4: They study the goals of ART and how antiretroviral work.
- CO 5: They are taught regarding importance of antiretroviral adherence and the contents of adherence counselling.
- CO 6: They will be able to study the disclosure, types of disclosure and disclosure counselling.
- CO 7: They have knowledge about stigma, types of stigma and DE stigmatisation.
- CO 8: Learners will study the psycho-social needs and challenges of living with a chronic disease.

Department of Political Science

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: Principles of Political Science

- CO 1: To understand the modern and traditional view point of normative and realistic approach
- CO 2: To understand the relationship of Political Science with other subjects like Economics, History, Sociology and Psychology
- CO 3: To discuss the origin of state and about the elements of state.
- CO 4: Discuss the social contract theory Hobbes, Locke and Rousseau and evolutionary theory and liberal, Marxian and Gandhian views of state.
- CO 4: Welfare State: Concept and Functions of Welfare State.
- CO 5: Analyzing electorates and electoral Systems.

Semester-II

Paper: Modern political theory

- CO 1: Understanding political system: its meaning, characteristics and Functions, political culture characteristics and its types, political socializations different agencies.
- CO 2: To understand the rights and duties, universal declaration of Human Rights
- CO 3: To examine the environmental Protection: issue and efforts made at national and international level to protect environment
- CO 4: To understand the concepts of liberty, justice, equality and democracy

Semester-III

Paper: Indian constitution

- CO 1: Understanding the making of constitution
- CO 2: Examining Indian federalism through Centre-state relations.
- CO 3: Evaluating the structures of government at the National level.
- CO 4: Evaluating the structures of government at the State level.
- CO 5: Describe the salient features of the Indian Constitution
- CO 6: Explain different ways of acquiring Indian Citizenship
- CO 7: List the Fundamental Rights and Fundamental Duties of Indian citizens
- CO 8: Describe the Directive Principles of State Policy and their significance
- CO 9: Detailed study of High Court and Supreme Court in India.

Semester-IV

Paper: Indian Political System

- CO 1: Examining the role of Political parties in Indian Democracy.
- CO 2: Studying the Election Commission and electoral process in India.
- CO 3: Studying the process of interaction between society and politics in contemporary India- Caste, tribe and religion.
- CO 4: Creating awareness about social movements and empowerment related to women.
- CO 5: Examining the role of Political parties in Indian Democracy.
- CO 6: Studying the Election Commission and electoral process in India.

Semester-V

Paper: Comparative Political Systems (UK & USA)

- CO 1: Discuss the theory and apply the methodology of comparative analysis within the discipline of political science.
- CO 2: Analyze contemporary problems in the countries under consideration in light of the conceptual frameworks presented in class.
- CO 3: Write an analysis of the institutions, political behaviour and political ideas of another country comparing these attributes to the U.S. and U.K model.

Semester-VI

Paper: International Politics: Theory and Practice

- CO 1: Demonstrate an understanding of: the key historical events which shaped the international system in the 20th century, the basic structures of the contemporary international system; and the key actors, institutions and their functions.
- CO 2: Describe the role of individual and cultural values and perceptions, and the importance of empirical evidence in analyzing international problems.

Name of Programme: B.A. with Honours

Course Outcomes

Semester-III

Paper: Public Administration

- CO 1: Knowledge about scope of public administration and Utility, difference between public and private administration.
- CO 2: To understand the theory of Hierarchy; unity of command, coordination and delegated legislation, concept of Good Governance
- CO 3: To get the information about functioning of civil services: recruitment and training and their role in nation building
- CO 4: To understand the process passing budget and sound budgetary system in Indian parliamentary control

Semester-IV

Paper: Indian Foreign Policy

- CO 1: Identify the names and geographic location of most contemporary states.
- CO 2: Demonstrate an understanding of the key historical events which shaped the international system in the 20th century, the basic structures of countries and the key actors, institutions and their functions.
- CO 3: Discuss the main international relations theories, and the values implicit in each of these different ways of looking at the world, thus giving them the tools necessary to understand the day-to-day events reported in the media.

Semester-V

Paper: Indian Political Thinkers

- CO 1: Knowledge about Mahatma Gandhi ji working process of Ideal State, Satyagraha, Non-Violence and Theory of Trusteeship
- CO 2: To understand the theory of B.R. Ambedkar political ideas, views on untouchability and social justice
- CO 3: Get knowledge about J.P. Narayan's Total Revolution
- CO 4: To discuss the M.N. Roy's philosophical aspect of Radical Humanism

Semester-VI

Paper I: Western Thinkers

- CO 1: Students are required to take Basic Concepts of Political Thought which addresses the enduring political theories and knowledge about political life and values of different political thinkers.
- CO 2: Students get information about the different political thinkers like Greek, Americans, French and England.

Name of Programme: M.A. Political Science

Semester-I

Paper I: Western Political Thought-I

- CO 1: To understand Social and Political Conditions of Greek City States, theory of Justice Communism, Education and theory of Philosopher King by Plato.
- CO 2: To understand Machiavelli: Separation of Ethics from Politics statecraft and Hobbes views on human nature and State of Nature
- CO 3: To discuss Locke theory state of nature, Natural Rights possessive individualism and Social Contract theory
- CO 4: To understand Rousseau: human nature and state of nature and social contract theory of General Will

Paper II: International Politics

- CO 1: Explaining scope and subject matter of International Relations as an autonomous academic discipline. Studying the role of Diplomacy, Propaganda and Military capabilities in the making of foreign policy.
- CO 2: Explaining certain basic concepts like Globalization in contemporary world order. Describing the Cold War phases and understanding the post-Cold War era. Discussing the developments in European Ethno-nationalism since 1990's

Paper III: Indian Political System

- CO 1: Outlining the basic values and philosophy of Indian Constitution as expressed in the Preamble.
- CO 2: Studying Fundamental rights, duties and Directive Principles of State Policy.
- CO 3: Examining Indian federalism through Centre-state relations.
- CO 4: Evaluating the structures of government at the National level.
- CO 5: Evaluating the structures of government at the State level.
- CO 6: Assessing Judicial Activism in India with particular reference to Supreme Court

Paper IV: Principles of Public Administration

- CO 1: Knowledge about Significance of Public Administration and Ecology of Public Administration, New Public Administration
- CO 2: To understand the theory of Scientific Management (Taylor), Bureaucratic Theory of Organization (Weber), Human Relations (Elton Mayo). Herbert Simon's Decision-Making Approach

CO 3: Knowledge about Principles of hierarchy, Unity of Command, Span of Control, Delegation and recruitment

CO 4: Concept of Budget and Performance Budgeting and functions of Lok Pal and Lok Ayukta

Paper V: Political Sociology

CO 1: Studying the concepts of Power, Authority and Legitimacy in the context of society.

CO 2: Examining the meaning, nature and scope of Political Sociology.

CO 3: Comparative study of Political Science, Sociology and Political Sociology

CO 4: Examining social stratification through the index of class, caste and elite.

CO 5: Establishing State –society interrelationship.

CO 6: Discussing the approaches to the study of Political Culture. Evaluating the different agents of Political Socialization and their interrelationships.

CO 7: Evaluating the concept of Political Development and Social Change- Role of Tradition and Modernity.

Semester-II

Paper VI: Western Political Thought-II

CO 1: To examine Bentham theory of utilitarianism

CO 2: To understand John Stuart Mill theory of On Liberty and working system of representative government

CO 3: To understand Hegel theory of Dialectical and historical materialism

CO 4: Knowledge of Marx Dialectical and Historical Materialism, Class Struggle and theory of surplus value

Paper VII: Modern Political Analysis

CO 1: Analyzing what is Modern political analysis and explaining the approaches to the Study of Politics– Normative, Behavioral, Post Behavioral and System.

CO 2: Assessing empirical Modern Political Theory: System's Analysis, Structural Functionalism.

CO 3: Explaining Dialectical Materialism and Historical Materialism with special reference to relationship between base and superstructure analyzing the Political Development and Modernization.

Paper VIII: Comparative Political Systems: UK, USA, and France

CO 1: Discuss the theory and apply the methodology of comparative analysis within the discipline of political science. Analyze contemporary problems in the countries under consideration in light of the conceptual frameworks presented in class.

CO 2: Write an analysis of the institutions, political behaviour and political ideas of another country comparing these attributes to the U.S. and U.K and France model.

Paper IX: Issues and Trends in Indian Politics

CO 1: Explaining the different theories from the point of view of Indian Political perspective.

CO 2: Studying the process of interaction between society and politics in contemporary India- Caste, tribe and religion.

CO 3: Explaining in detail coalition government, analyzing Dalit politics.

CO 4: Socio-economic system conditioning Indian Democracy

Paper X: Public Policy

CO 1: Knowledge about Features of public policy and five types of public policy (Substantive, Regulatory, Distributive and Re-distributive policies

CO 2: To understand the policy analysis and policy making in India different method and techniques to policy analysis

CO 3: Studying three types of Model Lindbloom's incremental, Herbert Simon decision making and Dror Normative optimum model

- CO 4: To understand the role of executive, legislature, judiciary, political parties, pressure groups, mass media and social movements
- CO 5: To understand the type different conditions for successful implementation of the policy

Semester-III

Paper XI: Politics of International Economic Relations

- CO 1: This study is based on the assumption that in order to understand patterns of interaction and change at the global level.
- CO 2: Need to look at both international politics and economics in an integrated manner.
- CO 3: Analyze the economic issues of trade, finance, production and development, but not from the perspective of economic theory. Instead, learner will engage with the International Relations concepts, ideas and literatures on the economic relations among states, and between states and non-state actors (such as firms, societal groups and international organizations).
- CO 4: The objective is therefore on the political problems that arise as a consequence of the increasing density of international economic relations.
- CO 5: Knowledge of economics is an advantage but not a requirement.

Paper XII: Foreign Policy of India

- CO 1: To understand determinants-internal, historical physical setting, economic and ideological and basic principles of Indian foreign policy
- CO 2: To get knowledge about India and its neighbouring countries Sri Lanka, Bangladesh, Nepal, Pakistan etc.
- CO 3: To studying the majors power: US, China
- CO 4: India's Approach towards the restructuring of the UN
- CO 5: To understand India's Nuclear Policy
- CO 6: The role of India in BRICS

Paper XIII: International Law

- CO 1: This course identifies with "international law" address traditional "public law" topics, such as the actions of states and interstate organizations, so-called "private international law" (dealing with the regulation of persons or property), or modern regimes that blur such distinctions, such as courses on "global governance" or the World Trade Organization.
- CO 2: The category also includes courses that focus on specific types of cross-border transactions, such as project finance or sovereign debt offerings.
- CO 3: Understanding International law relating to war and peace.
- CO 4: In addition, there are specialized courses on international topics such as human rights, environmental law, and investment law

Paper XIV: International Organization

- CO 1: The course gives a thorough understanding of the core literature on international organizations
- CO 2: Detailed knowledge of United Nations
- CO 3: Information regarding United Nations Declaration on Human Rights
- CO 4: Engage with this literature critically by developing their own argumentation
- CO5: Explain the main theoretical approaches and empirical issues in the study of international organizations
- CO 6: Write clearly, effectively, and subtly about these issues.

Paper XV: Human Rights

- CO 1: Human rights as a branch of public international law, and relevant juridical mechanisms at global as well as regional levels, human rights as an object of study in history, philosophy and the social sciences, as well as a practical reality in national and international politics,

- CO 2: Different forms of promoting and implementing human rights, domestically as well as on the international level.
- CO 3: Understanding the role of human rights in contemporary issues relating to terrorism, religion, ethnicity, gender and development

Semester-IV

Paper XVI: Recent Political Theory

- CO 1: Explaining the origin and decline of Political theory.
- CO 2: Understanding Gramsci and Max Webber viewpoints of state, civil society and hegemony
- CO 3: Explaining the different theories of democracy
- CO 4: Assessing the concepts of positivism, neo-positivism, modernism, post-modernism, libertarianism
- CO 5: Understanding the theories of state and its legislation

Paper XVII: Indian Political Thought

- CO 1: Students are required to take Basic Concepts of Political Thought which addresses the enduring political theories and questions of political life and values.
- CO 2: Students get information about the theories and political views of Indian political thinkers.

Paper-XVIII Government and Politics in Punjab

- CO 1: To understand the Singh Sabha Movement in Punjab, AryaSamaj, Movement, Ghadhar Movement and Praja- Mandal Movement
- CO 2: To analyse the Akali Morcha in Punjab
- CO 3: Role of coalition politics in Punjab
- CO 4: To examine the Sarkaria Commission in centre state relations
- CO 5: Impact of Green Revolution in Punjab socio politics system
- CO 6: To understand a dynamics party system in Punjab: Akali Dal, Congress-I, BJP and its emerging trends in Punjab Politics

Paper XIX: Research Methods in Social Science

- CO 1: To get the knowledge about role of scientific methods in social sciences
- CO 2: To understand the concepts of hypothesis
- CO 3: To understand selection and formulation of the research problem, research design and sampling and sampling techniques
- CO 4: To discuss about different methods like: survey, questionnaire, interview, observation and document analysis.
- CO 5: To understand the various dimensions of research: data analysis, data interpretation and report writing

Paper XX: Politics in South Asia

- CO 1: Familiarity with critical debates regarding the colonial and, especially, the postcolonial history, institutions, and political processes of South Asia.
- CO 2: Knowledge of specific institutions, events, and state actors involved in the politics, political economy, and political sociology of South Asia.
- CO 3: A critical understanding of specific debates regarding patterns of political, economic, social, and cultural change in South Asia, as well as an ability to test the ideas that lie behind these debates with empirical data.

Department of Mathematics

Name of Programme: B.Sc. (Non-Medical)/ (Computer Science)/ (Economics)/ B.A.

Course Outcomes

Semester-I

Paper: I Algebra

- CO 1: Algebra forms the basis for higher mathematics and helps students to apply mathematical results to more generalized concepts.
- CO 2: Students will learn how to deal with quadratic, bi-quadratic and cubic equations.
- CO 3: Students will be able to solve linear equations in three or more variables.

Paper: II Calculus and Trigonometry

- CO 1: Learn the basic concepts of various functions like exponential functions, logarithmic functions and trigonometric functions and their applications to problems in real world.
- CO 2: It helps the students to understand the concept of Limits, Continuity, Uniform Continuity and Derivatives and different properties of these concepts.
- CO 3: Students will learn about function of complex variables and their properties
- CO 4: Students will be able to find sums of different trigonometric series

Semester-II

Paper: I Calculus and Differential Equations

- CO 1: Calculus will help students to trace graphs of different functions and how to find their integrals.
- CO 2: Students will be able to relate different Trigonometric integrals using reduction formulae.
- CO 3: Students will be able to solve differential equations with constant and variable coefficients.
- CO 4: Students will learn to find maxima and minima, critical points and inflexion points of functions and to determine the concavity of curves.

Paper: Calculus II

- CO 1: Introduction of the concepts of Limits, Continuity, and partial derivatives of functions of two variables and different properties of these concepts.
- CO 2: Students will learn to expand functions of two variables using Taylor's theorem.
- CO 3: It helps to understand the concept of double triple integrals, how to solve them and their applications.

Semester- III

Paper: I Analysis

- CO 1: Analysis will introduce the concepts of sequence, series and their convergence and divergence. Also it will introduce the concept of Riemann Integrals.
- CO 2: Students will learn to check the convergence and divergence of sequence by using various tests.
- CO 3: Students will learn to check the convergence and divergence of series by using various tests.
- CO 4: Students will be able to check whether the function is Riemann Integrable or not and find their numerical values
- CO 5: Students will learn to deal with improper integrals, beta and gamma functions.

Paper: II Analytical Geometry

- CO 1: It will enhance the knowledge of Straight lines, parabolas, ellipse, hyperbola and sphere.
- CO 2: Solve applied mathematics problems involving analytic geometry and conic sections.
- CO 3: Students will be able identify different conics from general equation of degree two.

Semester-IV

Paper: I Statics and Vector Calculus

- CO 1: Students will be able to know about the different kind of forces acting on a body at rest and their properties
- CO 2: Students will learn about coplanar forces, parallel forces, moments, Varignon's theorem of moments, couples, resultant of two coplanar couples, and equilibrium of two coplanar couples.
- CO 3: Students will learn about Centre of Gravity of different bodies
- CO 4: Students will be able to differentiation of vectors, Gradient, divergence and curl operators, line integrals, Vector identity, Vector integration, Gauss Theorem, Green Theorem, Stokes Theorem and problems based on them.

Paper: II Solid Geometry

- CO 1: In Solid Geometry the students will learn about the surfaces and solids in space like cones, cylinders and prisms
- CO 2: Students will be able to identify equation of cones and cylinders from a second degree equation in three variables
- CO 3: Students will learn how to find surfaces of revolution of different curves.

Semester-V

Paper: I Dynamics

- CO 1: Dynamics will help to understand the concept of speed, velocity, acceleration and use these in solving problems.
- CO 2: Students will learn about Newton's Laws Motion and its applications.
- CO 3: Students will learn about work, power and energy and laws related to kinetic and potential energy.
- CO 4: Students will be to know about curvilinear motion of particle in a plane and projectiles.

Paper: II Number Theory

- CO 1: It will enhance the concepts of divisibility, G.C.D, L.C.M and basic properties of integers.
- CO 2: Students will be able to apply Euclid's Algorithm and backward substitution.
- CO 3: Students will be able to understand the definitions of congruences, residue classes and their properties.
- CO 4: Students will learn about different number theoretic functions and their properties.

Semester- VI

Paper: I Linear Algebra

- CO 1: Linear Algebra will introduce the concept of Groups, Rings and Fields, Vector Spaces and Linear Transformations.
- CO 2: Students will learn about linear span, linear dependence, linear independence of vectors and linear combination of vectors, basis of a vector space.
- CO 3: Students will be able to learn about linear transformation and algebra of linear transformations. They will also learn Rank- Nullity theorem and Matrix of a linear transformation.

Paper: II Numerical Analysis

- CO 1: In Numerical Analysis will learn common numerical methods and how they are used to obtain approximate solutions to otherwise intractable mathematical problems.
- CO 2: Students will be able to drive numerical methods for various mathematical operations and tasks such as interpolation, differentiation, integration, the solutions of linear and nonlinear equations.
- CO 3: Students will be able to analyse and evaluate the accuracy of common numerical methods.

Name of Program: M.Sc. (Mathematics)

Course Outcomes

Semester-I

Paper: 551 Real Analysis-I

- CO 1: Real Analysis studies the concepts such as sequences and their limits, continuity, differentiation, integration and sequences of functions of real variables and will improve students' logical reasoning.
- CO 2: Students will be able to understand countable & uncountable sets, open sets, closed sets, compact sets, perfect sets, k -cells and Cantor set.
- CO 3: The students will be able to understand limits and how they are used in sequences, series differentiation and integration.
- CO 4: They can understand Riemann-Stieltje's integral and its properties, Fundamental theorem of calculus and First and Second Mean values theorems of Riemann-Stieltje's integral.

Paper: 552 Complex Analysis

- CO 1: Complex Analysis investigates functions of complex variables, their limits, derivatives, integration and provides students with opportunities to build a deeper cognitive mathematical framework.
- CO2: Students will understand the concepts of anti-derivatives, Cauchy integral theorem or formula to Compute line integrals.
- CO 3: Students will understand the Bilinear transformations and their critical points, fixed points, cross ratio problems.
- CO 4: Students will study about zeroes singularities, residues at a pole and infinity and various theorems which help them to solve integral of a function of a complex variable.

Paper: 553 Algebra-I

- CO 1: In Algebra students will study about different algebraic structures such as groups, rings, fields.
- CO 2: It will introduce the concepts of Groups, Subgroups, Cyclic groups and their various theorems.
- CO 3: Students will understand the concept of Rings, Subrings, Quotients rings, Ideals, Prime ideals, maximal ideals, homeomorphisms of rings characteristic of a ring.

Paper: 554 Mechanics-I

- CO 1: Students can to articulate and describe deeply about both branches of Mathematics- Kinematics and Dynamics.
- CO 2: Students will come to know about applications of Newton's Law of Motion.
- CO 3: Students will learn about the Centre of gravity and Centre of mass of body along with its moment of inertia.
- CO 4: Students will understand various applications of vector theorems of mechanics and interpretation of results.

Paper: 555 Differential Equations

- CO 1: Students will study equations involve the derivatives of a function or a set of functions.
- CO 2: Students will recognize ODEs and system of ODEs concept that are encountered in the real world, understand and be able to communicate the underlying mathematics involved to help another person gain insight into the situation.
- CO 3: Students will be able to classify partial differential equations and transform into the canonical form.
- CO 4: Students will be able to extract information from partial derivative models in order to interpret reality.

Semester-II

Paper: 561 Real Analysis-II

- CO 1: Students will study convergence, uniform convergence, differentiation, and integration of sequences and series of functions.
- CO 2: Students will study the concepts of Outer measure, Lebesgue measure, Measurable sets and their properties.
- CO 3: They will learn about characteristics functions, step and simple functions, Lebesgue integral and its various theorems.
- CO 4: Students will study Arzela Theorem, Weistrass approximation theorem and their applications.

Paper: 562 Tensors and Differential Geometry

- CO 1: The students will able to use the techniques of differential calculus, integral calculus, linear algebra and multi- linear algebra to study problems in geometry.
- CO 2: Students will study the Theory of Space Curves, contact between curves and surfaces, envelopes, developable surfaces, asymptotic lines and their various theorems.
- CO 3: Students will understand Geodesics, its differential equation, curvature, geodesics mappings and their various properties.
- CO 4: Students will learn about different types of tensors such as Cartesian tensors, metric tensors, contra-variant, covariant and mixed tensors.

Paper: 563 Algebra-II

- CO 1: Students will study field of quotients of an Integral Domain, Principle ideal domains, Euclidean rings, UFD, Ring of Gaussian Integers, Polynomial rings and various theorems for these concepts.
- CO 2: Students will study different extension of fields such as finite, infinite, algebraic, separable, inseparable and simple and important theorem like Existence and uniqueness theorem.
- CO 3: The concepts of Galois Theory, Group of automorphisms of a field are also introduced to the students. They study fundamental theorem of Galois Theory.
- CO 4: Students will study modules, its different types, and Fundamental theorem for finitely generated modules over a PID.

Paper: 564 Mechanics-II

- CO 1: Students will study the different concepts of rigid body such as: motion, linear momentum, angular momentum, impulsive forces and Laws of conservation of angular momentum and energy.
- CO 2: Students will learn about the Euler's dynamical equations for motion about a fixed point and the properties of rigid body motion under no force.
- CO 3: Mechanics will give students an idea of Lagrange's concepts of holonomic system and system of impulsive forces.
- CO 4: Students will study the various standard principles such as: Hamilton's Principle, Principle of Least action and also study Euler-Lagrange equation for extremal functions.

Paper: 565 Differential and Integral Equations

- CO 1: Students will study non-linear partial differential equations of first order and various methods to solve them such as Charpit's Method and Jacobi's Method.
- CO 2: Students will learn about second-order partial differential equation and its various types. They also study various methods to solve them.
- CO 3: Students will study various transformations such as Fourier and Laplace.
- CO 4: Students will come to know about the concept of Voltera and Fredholm integral equations. They will be able to solve these methods such as: successive approximation, Neumann's series method.

Semester-III

Paper: 571 Functional Analysis-I

- CO 1: It is an important branch of Mathematics developed with the purpose to cover theoretical needs of partial differentiable equations and Mathematical Analysis.
- CO 2: Students will learn about important spaces like: Normed linear spaces, Banach spaces, Quotient spaces and concepts like Holder's and Minkowski's inequality and convergence in these spaces.
- CO 3: Students will study continuous linear transformations, equivalent norms and compactness of finite dimensional normed linear spaces.
- CO 4: Students will learn important theorems such as: Hahn-Banach Theorem, Open Mapping Theorem, Closed Graph Theorem, Uniform Boundedness Principle and an overview of Hilbert spaces

Paper: 572 Topology-I

- CO 1: Students will study topology on a space is determined by collection of open sets, closed sets and by basis of neighborhoods at each points.
- CO 2: Students will know what it means by convergence and compactness of topological space.
- CO 3: Students will study about various topological spaces like T_0 , T_1 , Hausdorff spaces, regular, normal spaces, Tychonoff spaces, completely regular and completely normal spaces.
- CO 4: Students will become familiar with Urysohn Lemma and Tietze Extension Theorem which helps to characterize metrizable spaces.

Paper: 578: Operational Research –I

- CO 1: The concerned course will help students to identify and develop operational research models from the verbal description of the real system by studying linear programming problems and properties of their solutions.
- CO 2: Students will understand the various Mathematical techniques that are needed to solve linear programming problems such as Simplex Method, Big-M and Two-Phase method.
- CO 3: Students will learn to formulate a dual of primal problem and methods to solve them. They also study Transportation and Assignment problems by solving them using various methods.
- CO 4: The concept of Game Theory and Integer Programming will enhance their knowledge and mathematical logics.

Paper: 586 Number Theory

- CO 1: Students will understand simultaneous linear congruences, Chinese-Remainder Theorem with applications, Fermat's Numbers and Primitive roots.
- CO 2: Students will learn indices and their applications, quadratic residues, Gauss's Lemma, Jacobian symbols and its properties.
- CO 3: Students will study the Arithmetic functions, Perfect numbers and Diophantine equation with its applications.
- CO 4: Students will study finite and infinite simple continued fractions, periodic, purely periodic continued fractions and Fundamental solution to Pell's equation.

Paper: 577 Statistics-I

- CO 1: Students will study different measures of central tendency, dispersion, moments, skewness and kurtosis and probability along with its various theorems and applications.
- CO 2: Students will learn about mathematical expectations and moments, moment generating functions and their properties.
- CO 3: Students will study different probability distributions such as Binomial, Poisson's, Exponential, Gamma, Beta, and Normal.
- CO 4: Students will learn about Least-Square principle, Linear and Multiple Regression, co-relation coefficients and ratio.

Semester-IV

Paper: 581 Functional Analysis-II

- CO 1: Students will learn about strong and weak convergence in finite and infinite dimensional normed linear spaces.
- CO 2: Students will study different operators such as: self-adjoint operators, unitary operators, normal operators and projection on Hilbert spaces.
- CO 3: Finite Dimensional Spectral theory will give student's an insight of Spectrum of a bounded linear operator, self-adjoint, positive and unitary operators and Properties of Compact linear operators.
- CO 4: Students will study the Banach algebras, regular and singular elements, Topological divisors of zero and formula for Spectral radius.

Paper: 582 Topology-II

- CO 1: Students will study the study higher separation axioms for various topological spaces like T_5 , metric spaces, Hausdorff spaces, regular, normal spaces, Tychonoff spaces, completely regular and completely normal spaces.
- CO 2: Students will study Compact Spaces, their properties and their relation with Hausdorff spaces, regular spaces and normal spaces.
- CO 3: Students will study Bolzano-Weierstrass property, Countably compact spaces, Locally compact spaces, Tychonoff theorem and compactness in terms of base and sub-base elements.
- CO 4: Students will study about nets, filters and ultra-filters which are useful in defining convergence of net in a set, eventually and frequently in a set

Paper: 588 Operational Research-II

- CO 1: Students will learn about the Queuing Theory, classification of Queuing Models.
- CO 2: Students will study about different Queuing Models, generalized models and Power-Supply models.
- CO 3: Students will learn about Inventory decisions, cost associated and economic order quantity, problems with price breaks and replacement problems.
- CO 4: Students will learn the need of simulations, its methods and models, maintenance problems and job sequencing.

Paper: 575 Discrete Mathematics-I

- CO 1: It will enhance the knowledge of students about Mathematical concepts like relations, functions.
- CO 2: Students will learn the use of grammar to construct languages In Automation.
- CO 3: Students will learn to construct truth tables using different logic operations.

Paper: 587 Statistics-II

- CO 1: Students will study various Sampling distributions such as Chi-Square, t and F, distribution of mean and variance and their properties.
- CO 2: Students will learn about estimators, properties of unbiasedness, sufficiency and efficiency, simple and composite hypothesis and Likelihood tests.
- CO 3: Students will learn about applications of Sampling Distributions and equality of two proportions.
- CO 4: Linear Estimations models will help students to understand analysis of variance in one-way and two-way classified data, BLUE, and Gauss Markoff Linear Model.

Department of Cosmetology

Name of Programme: B.Voc. (Cosmetology and Wellness)

Course Outcomes

Semester-I

Paper: IV Basic Concept of Skin

- CO 1: Learn the basic concept, structure & growth and reproduction of cell in brief.
- CO 2: Get the knowledge about the function and structure of skin.
- CO 3: Provides the knowledge of type and common skin problems in detail.
- CO 4: Learn diseases & disorder of sweat and sebaceous glands.
- CO 5: To have the Knowledge and treatments of skin allergy.

Paper: V Basic Skin Care

- CO 1: Get the knowledge about the basic facial, including the various types & theory of massage.
- CO 2: Learn the basic manipulation and massage techniques, benefits of massage, safety precautions.
- CO 3: Learn the Basic knowledge of facial muscles and motor points.
- CO 4: Learn to analyse and identify the different facial types, skin types with magnifying glass or LED skin analyser.
- CO 5: Identify which skin disorders may be handled in the salon and which should be referred to a physician and skin treatments with home remedies.

Paper: VI Epilation and Depilation

- CO 1: Product knowledge which are used in epilation and depilation method.
- CO 2: Provides the knowledge about how to remove unwanted hair with laser treatment.
- CO 3: Students will learn the proper method of threading, waxing, tweezing and depilatories etc.
- CO 4: Learn the techniques of doing skin bleach for lightened the facial hair & technique of doing shaving.
- CO 5: Get the knowledge of benefits and safety precaution of epilation and depilation.

Paper: VII Manicure and Pedicure

- CO 1: Knowledge of nail disorders, diseases & basic structure of nail.
- CO 2: Product knowledge of manicure and pedicure.
- CO 3: Get the basic knowledge of proper techniques of manicure and pedicure with pressure points.
- CO 4: Provide knowledge about the benefits of manicure and pedicure.
- CO 5: Learn infection control methods, safety and precautions.

Paper: VIII Sanitation and Safety Precautions

- CO 1: Introduction to sanitation and cosmetology.
- CO 2: Definitions pertaining to sanitation & method of sanitation.
- CO 3: Get the knowledge of sanitation rules.
- CO 4: Provide the knowledge of public sanitation & procedure.
- CO 5: Learn types of sanitizers, usages & safety precaution.

Semester-II

Paper: IV Basic Concept of Hair

- CO 1: Learn the basic structure, division of hair.
- CO 2: Get the knowledge of forms and types of hair.
- CO 3: Learn characteristics of hair.
- CO 4: Provide the basic knowledge of growth and regeneration of hair.
- CO 5: Knowledge of common disorders of hair and scalp infectious & non infectious diseases.

Paper: IV Hair Care

- CO 1: Learn techniques of brushing and combing,
- CO 2: Care of hair with oil treatments.

CO 3: Student will learn massage techniques (manual, vibratory), benefits & precautions of massage.

CO 4: Knowledge of application of heat & electrotherapy.

CO 5: Procedure of shampooing and conditioning the hair.

Paper: V Hair Styling and Dressing.

CO 1: Learn elements and basic principle of design.

CO 2: Knowledge of sectioning and basic haircuts.

CO 3: Get the knowledge of line, elevation & angle system which are used during haircuts.

CO 4: Students will learn thermal hair styling with different electronic equipments like pressing, curling rod, crimper etc.

CO 5: Learn to basic use of hair pieces and extensions in hair styling.

Paper: VI Hair Coloring and Lightening

CO 1: Learn basic principles of color.

CO 2: Provide knowledge about classification of hair color & selecting the color formula.

CO 3: Preparation and process of hair coloring.

CO 4: Usage of lighteners and experience the effect of lighteners.

CO 5: Learn preparation, process and safety precautions while using any chemical product.

Paper: VII Color Correction

CO 1: Learn the selection of color according to skin and hair.

CO 2: Provide knowledge of hair pigments.

CO 3: Learn how to do color toning.

CO 4: Get the knowledge about the depth of color.

CO 5: Learn different techniques of color correction and safety precaution while doing hair color.

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Cosmetology

Semester I

Paper: Theory/Practical

CO 1: The course offered in B:A: give emphasis by shaping the new minds of the students by giving the appropriate knowledge of Cosmetology.

CO 2: This Course offers the students to learn basic knowledge of skin, personal grooming and massage.

CO 3: This course provides an opportunity to the students to improve their Practical Skills through demonstration, Hands on practice.

CO 4: They will get the knowledge of basic etiquettes.

CO 5: Students can demonstrate practical of preparing of facial mask pack and steps for applying the pack as per requirement of skin.

Semester-II

Paper: Theory/Practical

CO 1: Knowledge of nail disorders, diseases & basic structure of nail.

CO 2: Product knowledge of manicure and pedicure.

CO 3: Get the basic knowledge of proper techniques of manicure and pedicure with pressure points.

CO 4: Provide knowledge about the benefits of manicure and pedicure.

CO 5: Learn infection control methods, safety and precautions.

CO 6: Product knowledge which are used in epilation and depilation method.

CO 7: Provides the knowledge about how to remove unwanted hair with laser treatment.

CO 8: Students will learn the proper method of threading, waxing, tweezing and depilatories etc.

Semester-III

Paper: Theory/Practical

CO 1: Describe terminology and concepts used in the cosmetology field.

CO 2: Analyse customer needs and communicate solutions by applying theories of cosmetology to real-life customer experiences.

CO 3: Apply business concepts and professional behaviour to build a sustainable clientele in the field Cosmetology.

CO 4: Demonstrate basic cosmetology practical skills.

CO 5: Students learn structure of hair, its purpose, forms, composition and types of hair.

Semester-IV

Paper: Theory/Practical

CO 1: Perform hair care services for all types of hair including hair analysis, hairstyling and hair treatments.

CO 2: Perform basic hair care services including hair massage, hair Spa and superfluous hair removal.

CO 3: Demonstrate customer service skills, self-growth and personal development.

CO 4: Students learn to do thermal hair styling.

CO 5: Empower them by getting the knowledge of good and prescribed diet for healthy hair.

Semester-V

Paper: Theory/Practical

CO 1: Perform salon business such as front desk operations, dispensary inventory and loss prevention, resume building and interviewing skills, self-marketing and the basic knowledge of starting one's own salon business.

CO 2: To have the knowledge of decontamination control, public hygiene and special sanitation procedures used for the protection of the client and the operator.

CO 3: Perform hair care services for all types of hair including hair analysis, hair cutting, hairstyling, hair coloring and lightening, permanent waving and chemical relaxing.

CO 4: Perform basic skin care services including skin analysis, makeup application.

Semester-VI

Paper: Theory/Practical

CO 1: Salon management teaches the business aspects of managing a salon. This includes aspects such as human resources, marketing, and financial components.

CO 2: Some individuals may move into management positions within the salon. Others may open or run their own business using the information taught in these programs.

CO 3: This Course offers the importance of health and safety procedures in the salon.

CO 4: The importance of health and safety in the salon. Make the workplace safe for customers, suppliers and the general public; prevent risks to health; appropriate use and storage of materials; appropriate use maintenance and storage of equipment; indicate what to do in an emergency situation.

CO 5: Students are able to manage the difficulties like. Untrained staff, tools that are not properly sanitized, dirty basins and towels, inappropriate use and storage of chemicals, inappropriate use and storage of equipment, lack of cleanliness, poor ventilation.

Name of Programme: Diploma in Cosmetology

Course Outcomes

Semester-1

Paper: I

- CO 1: Get the basic knowledge of aims and importance of cosmetology.
- CO 2: Provides the basic knowledge of visual poise like care of yourself like teeth, ears, feet, ears, feet, removing body hair, nails, hand care and care of clothing.
- CO 3: Students will be involved in the learning process of basic structure, functions, types analysis and common problems of skin.
- CO 4: Provides the knowledge about benefits of massage, massage methods, plain facial and facial treatment of acne, pigmentation, wrinkles, blackheads removal etc.
- CO 5: Create a variety of make-up according to day and night, formal & casual by analyzing the facial shape.

Paper: II

- CO 1: Introduction to yoga, Elements of an on-going yoga practice, Concepts and basics of warm up and cool down, Safety principles in a yoga practice.
- CO 2: Practices yoga asana for example Shav, Gomukh, Vajar, Chakra and many more.
- CO 3: Understand the Basic Knowledge of hair structure, division and different types of hair and disorders like dandruff, alopecia, hair fall, white hair, head lice etc.
- CO 4: Get the knowledge of sectioning, haircuts, techniques of haircuts, basic cuts etc.
- CO 5: Provide the knowledge of proper sanitation of equipments and tool which are used in cosmetology lab.

Semester-II

Paper: I

- CO 1: Understand the structure, disorders and diseases of nail.
- CO2: Get the knowledge about the methods of pedicure and manicure, nail spa and nail art.
- CO3: Provides the knowledge of how to take care of eyes, exercise of eyes, eyebrow shaping and treatment of eyes with home remedies.
- CO4: Create a variety of make-up occasion like bridal, party, engagement with proper contouring of eyes, nose, lips, cheeks and jaw line.
- CO5: Learn proper dupatta setting and saree draping.

Paper-II

- CO 1: Students will be able to integrate knowledge about role of nutrition such as protein, carbohydrates, fats, minerals vitamin etc. and basic five food groups.
- CO 2: Students will be able to justify what effect of color would have on the structure and how different color and looks work on the hair like global color, streaking, henna and understand the proper method of mixing and applying.
- CO 3: Understand the Basic techniques of massage and treatments of different hair problems with the help natural ingredients. Also get the knowledge about the hair treatments after the use of chemicals like hair spa, deep conditioning and polishing.
- CO 4: Learn advance techniques on the hair like rebonding and perming.
- CO 5: Perform salon business such as front desk operations, dispensary inventory and loss prevention, resume building and interviewing skills, self-marketing and the basic knowledge of starting one's own salon business, planning and layout of salon.

Name of Programme: P G Diploma in Cosmetology

Course Outcomes

Semester-I

Paper: I Personality Development

- CO 1: Students will learn using the color wheel to assemble your outfits. Outfits according to figure, physique, complexion, occupation and weather.
- CO 2: Get the basic knowledge of aims and importance of cosmetology.
- CO 3: Provides the basic knowledge of visual poise like basic & corrective stance, basic hand positions, correct sitting positions, getting in & out of car, handling coats, shawls, handbags etc.
- CO 4: Develop students' ability to communicate about familiar topics and in simple and routine tasks, and participate in classroom conversations. Familiarize students with informal presentation skills and structures.
- CO 5: Learn why personal hygiene is important as well as ways to maintain personal hygiene. Students then finish up by making a personal hygiene plan & type, growth and reproduction of bacteria.

Paper: II External Skin Science

- CO 1: Get the basic knowledge of structure of cells, growth and reproduction of cells in brief.
- CO 2: Students will be involved in the learning process of anatomy, function, types and different problems of skin.
- CO 3: To have the basic knowledge of facial muscles, kinds of nerves of face and neck.
- CO 4: Gain the Knowledge of basic theory of massage, its benefits and precautions.
- CO 5: Provides the knowledge of benefits of massage, basic manipulation, contraindications, and facial therapies with pressure points.

Paper: III Hair and scalp

- CO 1: Understand the Basic Knowledge of hair structure, division and different types of hair.
- CO 2: Knowledge of the structure connected with hair follicle like dermal papilla, outer & inner roots sheath, bulb, dermal cord, connective tissues & arrector pilli muscles.
- CO 3: Get the knowledge of growth and Replacement of hair like hair cycle, analysis and hair pigments.
- CO 4: Knowledge of hair disorders such as infectious and non-infectious disorder and their reasons.
- CO 5: Provides the knowledge of care and treatments of scalp with different electrical equipments.

Semester-II

Paper: I Yoga and Saloon Management

- CO 1: Knowledge of balance, flexibility, kinesthetic awareness, alignment, breath control, strength.
- CO 2: Introduction to relaxation techniques, experience the relationship between mind, body and spirit.
- CO 3: Introduction to yoga, elements of an on-going yoga practice, Concepts and basics of warm up and cool down, Safety principles in a yoga practice.
- CO 4: Perform salon business such as front desk operations, dispensary inventory and loss prevention, resume building and interviewing skills, self-marketing and the basic knowledge of starting one's own salon business.
- CO 5: Student will get the knowledge of decontamination control, public hygiene and special sanitation procedures used for the protection of the client and the operator, Students will learn the professional ethics and also get the awareness of qualities and duties of salon manager/ operator.

Paper-II Makeup and Cosmetics

- CO 1: Assess the chemical composition of cosmetic products and recommend appropriate cosmetic treatments.
- CO 2: Students will be able to differentiate ingredients found in cosmetic products and identify their functions, effects and apply various make-up equipment and techniques used for professional application.
- CO 3: Create a variety of make-up special effects to portray a theme or cater to the requirements of events and perform Basic makeup, Formal makeup, corrective makeup and bridal makeup.
- CO 4: Get the knowledge of structure, functions, disorder and diseases of nails in brief.
- CO 5: Provides the knowledge about step by step manicure and pedicure with their effects.

Paper-III Chemical Structure of Hair and Colours

- CO 1: Students will get the Basic knowledge and chemical composition, knowledge of hair bonds, chemical reaction in layers of hair, acids, and alkalis in hair, action of shampoo and types of shampoo.
- CO 2: Provides basic knowledge of physical and chemical classifications such as shampoo, hair conditioners, rinses, hair gels, lotions, sprays, tonics and oils.
- CO 3: Get the knowledge of basic principles of color, color correction, types of color, client consultation, mixing techniques and depth and tones of color etc.
- CO 4: Provides the knowledge of hair texturing like cutting tools, cutting angle system, cutting lines & texturing and different techniques and haircuts.
- CO 5: Knowledge of chemical jobs, permanent waving and hair rebonding techniques.

Department of Mass Communication and Video Production

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Year- I

Paper: Journalism and Mass Communication

- CO 1: Students will be able to make effective oral presentations on a variety of topics in public. The students become sensitive and caring and the ability to understand people of very different backgrounds and upbringing is developed in them.
- CO 2: The students develop the ability to present information clearly, logically and critically.
- CO 3: The students understand the basics of news and its elements, news sources and its types.
- CO 4: The students can identify the role of the reporter and his/her duties and responsibilities. They are aware about the various duties, responsibilities and qualities of reporter of different beats.
- CO 5: Understanding the crucial role played by Ministry of I&B and its various organs.

Year- II

Paper: Journalism and mass communication

- CO 1: The students analyze the work of various news persons, their qualities, duties and the professional requirements.
- CO 2: The students come to know about the whole process of starting a newspaper venture of how to apply for it and what are the other formalities.
- CO 3: Defining various aspects and the nuances involved in newspaper page designing and typography.
- CO 4: The students can understand various formats of Radio and TV programs.
- CO 5: The students develop knowledge about photography and photojournalism.

Year- III

Paper: Journalism and mass communication

- CO 1: The students gain knowledge about advertising and its different types and mediums and their selection criterion.
- CO 2: The students learn about ethics of advertising.
- CO 3: The students understand the structure and functioning of an advertising agency.
- CO 4: The students gain knowledge about Public Relations and its various aspects, PR in Public and Private sector and various tools of PR.
- CO 5: The students learn about the new technologies in PR, PR institutions and role of PRO with the qualities and duties.

Name of the Programme: B.Voc. (Journalism&Media)

Course Outcomes

Semester-I

Paper: Communication: Principles and Practices

- CO 1: The students will be able to apply specific paradigms for critical thinking to mass communication.
- CO 2: They will be able to determine the best methods and strategies for developing a message.
- CO 3: They will be able to evaluate mass communication theories and assess their use.
- CO 4: Students will be able to make effective oral presentations on a variety of topics.
- CO 5: The students will be aware about basic concepts of communication and its role in society.

Paper: Basics of Computer

- CO 1: They will understand the concepts of input/output devices of computers and how it works.
- CO 2: The students will be able to use MS office, MS excel, MS word and power point presentation.
- CO 3: They will know the important commands of coral draw, page maker, quark express and Photoshop.
- CO 4: They will know about internet and its applications.
- CO 5: The students will be able to make banners in coral draw.

Paper: News Reporting-I

- CO 1: The basics of reporting and writing for print media will be introduced to the students.
- CO 2: The students will be able to understand the news values and qualities of reporters.
- CO 3: Different types of reporting and their importance will be told to the students.
- CO 4: The students will be trained in event reporting.

Paper: History of Press

- CO 1: The students will be introduced to the history of print media and its role in freedom movement.
- CO 2: The students will be made aware about organs of I&B Ministry and their working.
- CO 3: The students will know about the regulatory bodies in Print and Broadcast journalism.
- CO 4: The students will be told about the evolution of Indian press and media in Punjab.

Semester-II

Paper: Media and the Law

- CO 1: The students will be provided with the basic ideas of all the laws related to media which govern it.
- CO 2: The students will be told about their fundamental rights and duties.
- CO 3: They will be made aware about the various regulatory bodies of media.
- CO 4: The students will be provided with basic understanding on various media laws and ethics.

Paper: News Reporting-II

- CO 1: The students will be introduced to writing styles of articles/features/Columns/editorials and reviews.
- CO 2: They will be able to understand newspaper organisation structure and editorial department.
- CO 3: The students are acquainted with interview taking techniques.

Paper: Editing for newspapers

- CO 1: The students will be acquainted with principles of editing, Copy testing, and rewriting the news Copy.
- CO 2: The students will be able to analyze the headlines of news stories and different types of headlines.
- CO 3: The students will learn about the importance of translation in journalism.
- CO 4: They will be able to differentiate between newspaper/radio and TV editing.

Paper: Design and Pagination

- CO 1: The students will be told about traditional methods of printing and the new ones.
- CO 2: They will come to know about the principles of page makeup and pagination.
- CO 3: The students will be given practical knowledge about the software of pagination, quark express and illustrator.
- CO 4: They will be told about the page makeup of various pages of a newspaper.

Semester-III**Paper: Broadcasting in India**

- CO 1: The students will be made aware about the evolution of broadcasting in India and its present status.
- CO 2: They will learn about AIR, community radio, and internet radio.
- CO 3: They will also learn about broadcasting policy of the government.
- CO 4: The students will also be told about the AIR code of broadcasting and its commercial code.

Paper: Business Communication

- CO 1: The students will be able to demonstrate their verbal and non-verbal communication ability through presentations.
- CO 2: The students will be able to draft business correspondence with brevity and clarity.
- CO 3: The students will be made aware about the various techniques of writing for business pages of a newspaper.
- CO 4: They will have an understanding and analysis of budget and share market too.

Paper: Photo Journalism

- CO 1: The students can create imagery which meets the requirements of different media.
- CO 2: They are acquainted with different types of photography.
- CO 3: The students will know about the various legal and ethical issues in photojournalism.
- CO 4: The students will have a sound knowledge of technical aspects of photography.

Paper: Radio Journalism

- CO 1: The students can produce well-researched, effective and relevant radio shows.
- CO 2: They will be able to use all the equipments used in a radio studio.
- CO 3: The students will be able to apply technical skills in recording and production skills to produce and present radio interviews, news stories and features.
- CO 4: The students will develop professional communication skills as applicable to professional broadcast media including voice and presentation.

Paper: Advertising

- CO 1: The students will be introduced to basics of advertising and its role in society.
- CO 2: The students will be trained in basics of ad campaign designing and copy writing.
- CO 3: The students will be made aware about the ethics of advertising.

CO 4: They will be provided an understanding of various forms of advertising.

Semester-IV

Paper: Media Management

CO 1: The students will come to know about the importance of management in the field of media.

CO 2: The students will be told about the organisational pattern of print media.

CO 3: They will be acquainted with the functions of various departments of a newspaper.

Paper: Public Relations

CO 1: The students will be made to understand the scope, functioning of Public Relations.

CO 2: The students will be enabled to understand the various PR tools and publics.

CO 3: The role of PR in government and private sectors will be introduced to the students.

CO 4: The students will be able to understand the ethics, law and responsibility of Public Relations.

Paper: TV Journalism

CO 1: The student will be able to identify appropriate story Content for broadcast news reporting.

CO 2: The students will be able to gather information through a variety of methods using primary and secondary sources.

CO 3: They will be able to consistently meet production deadlines whilst maintaining high journalistic standards.

CO 4: They will be able to produce news reports using industry-appropriate techniques of scripting, shooting and editing.

Paper: Camera, Lights and Sound

CO 1: The students will learn all the aspects of camera and lighting.

CO 2: They will come to know about all the aspects of camera handling, lighting and sound system.

CO 3: They will be able to handle camera on their own and produce good quality videos.

CO 4: They will be given practical training of video editing using software.

Paper: Cyber Journalism

CO 1: The students will know about cyber journalism and its advantages/disadvantages.

CO 2: They will be aware about the recent trends of presentation of news in cyber journalism.

CO 3: They will be learning latest trends in cyber reporting and editing.

CO 4: They will be made aware about the concept of e-governance and cyber laws.

Semester-V

Paper: GK and Current Affairs

CO 1: The students will be aware about the national and international happenings.

CO 2: They will be able to take part in quizzes, debates and competitive exams.

Paper: Development communication

CO 1: The students will be enabled to understand various factors of development.

CO 2: They will be enabled to learn the problems of human development and required measures to overcome them.

CO 3: They will be introduced to development issues in India and coverage of these issues by media.

CO 4: The idea of social responsibility and awareness of state and central government welfare measures will be inculcated in them.

CO 5: The students will be trained on various media programme formats of development communication.

Paper: Film Production

CO 1: The students will get knowledge about various phases of film production, .i.e., preproduction, production and post-production.

CO 2: They will have knowledge about key departments involved in film making.

CO 3: They will know about film distribution, film review and film criticism.

Paper: Event Management

CO 1: The students will know the importance of team work.

CO 2: They will develop a range of leadership skills and abilities such as motivating others, leading changes and resolving conflict.

CO 3: The qualities of a good manager are instilled in the students as they have to act as good managers.

Paper: Writing for Media

CO 1: The students will be acquainted with the process of writing for print/radio/TV.

CO 2: They will be able to write good scripts for radio and TV.

CO 3: Students will be able to understand and apply the historical, theoretical, legal and societal contexts for producing and consuming news media for consumers, ranging from local to global publics.

Semester-VI**Paper: GK and Current Affairs**

CO 1: The students will be aware about the national and international happenings.

CO2: They will be able to take part in quizzes, debates and competitive exams.

Paper: Folk Media

CO 1: The students will be able to understand the role of folk media in communication.

CO 2: The students will be able to understand the influence of modern media on folk media.

CO 3: They will come to know the present status of folk media.

Paper: Communication Research

CO 1: The students will demonstrate a sound knowledge of basic research methods.

CO 2: They will demonstrate a working knowledge of the theories and frameworks through which media are analysed and understood.

CO 3: The students will be conducting surveys which will enhance their practical knowledge in research.

Paper: Publishing

CO 1: The students will be able to understand the principles of publishing industry.

CO 2: The students will understand the job of central and state publishing groups and NBT.

CO 3: They will understand the working of a publishing house by visiting there.

CO 4: The students will be made aware about basics of DTP fonts, page designing and proof correction.

CO 5: The students will be told about the Copyright, plagiarism and royalty.

Paper: Training

CO 1: The students will get training in any reputed media house for one month. They will be acquainted with the working environment of the media houses.

Name of the Programme: M.A.(Journalism and Mass Communication)**Course Outcomes****Semester-I****Paper: Introduction to Communication**

CO 1: The students will be able to apply specific paradigms for critical thinking to mass communication.

CO 2: They will be able to determine the best methods and strategies for developing a message.

CO 3: They will be able to evaluate mass communication theories and assess their use.

CO 4: Students will be able to make effective oral presentations on a variety of topics.

CO 5: The students will be aware about basic concepts of communication and its role in society.

Paper: History of Print Media in India

CO 1: The students will be introduced to the history of print media and its role in freedom movement.

CO 2: The students will be made aware about organs of I&B Ministry and their working.

CO 3: The students will know about the regulatory bodies in Print and Broadcast journalism.

CO 4: The students will be told about the evolution of Indian press and media in Punjab.

Paper: Reporting and Editing

CO 1: The basics of reporting and writing for print media will be introduced to the students.

CO 2: The students will be able to understand the news values and qualities of reporters.

CO 3: Different types of reporting and their importance will be told to the students.

CO 4: The students will be trained in event reporting.

Paper: Media Law and Ethics

CO 1: The students will be provided with the basic ideas of all the laws related to media which govern it.

CO 2: The students will be told about their fundamental rights and duties.

CO 3: They will be made aware about the various regulatory bodies of media.

CO 4: The students will be provided with basic understanding on various media laws and ethics

Paper: Advertising

CO 1: The students will be introduced to basics of advertising and its role in society.

CO 2: The students will be trained in basics of ad campaign designing and Copy writing.

CO 3: The students will be made aware about the ethics of advertising.

CO 4: They will be provided an understanding of various forms of advertising.

Semester-II**Paper: Development Communication**

CO 1: The students will be enabled to understand various factors of development.

CO 2: They will be enabled to learn the problems of human development and required measures to overcome them.

CO 3: They will be introduced to development issues in India and coverage of these issues by media.

CO 4: The idea of social responsibility and awareness of state and central government welfare measures will be inculcated in them.

CO 5: The students will be trained on various media programme formats of development Communication.

Paper: Media Management

CO 1: The students will come to know about the importance of management in the field of media.

CO 2: The students will be told about the organisational pattern of print media.

CO 3: They will be acquainted with the functions of various departments of a newspaper.

Paper: Current Affairs

CO 1: The students will be aware about the national and international happenings.

CO 2: They will be able to take part in quizzes, debates and competitive exams

Paper: Communication Research-I

CO 1: The students will demonstrate a sound knowledge of basic research methods.

CO 2: They will demonstrate a working knowledge of the theories and frameworks through which media are analysed and understood.

CO 3: The students will be conducting surveys which will enhance their practical knowledge in research.

Paper: Radio and TV Programming

CO 1: The students will be able to use all the equipments of a radio and TV studio.

CO 2: The students will be able to write scripts for different formats of radio and TV.

CO 3: They will be able to use camera and produce TV programs of any format.

Semester-III**Paper: Mass Communication Research-II**

CO 1: The students will demonstrate a sound knowledge of basic research methods.

CO 2: They will demonstrate a working knowledge of the theories and frameworks through which media are analysed and understood.

CO 3: The students will be conducting surveys which will enhance their practical knowledge in research.

Paper: New Media Technology

CO 1: The students will come to know about the concept of new media in mass Communication.

CO 2: They will be made aware about cyber journalism.

CO 3: They will be acquainted with working of online newspapers.

Paper: Public Relation and Corporate Communication

CO 1: The students will be made to understand the scope, functioning of Public Relations.

CO 2: The students will be enabled to understand the various PR tools and publics.

CO 3: The role of PR in government and private sectors will be introduced to the students.

CO 4: The students will be able to understand the ethics, law and responsibility of PRO.

CO 5: They come to know about corporate Communication and privatisation of PR.

Paper: Science Journalism

CO 1: The students are made aware about the importance of science in the field of journalism.

CO 2: They come to know about health Communication, government policies of health sectors and welfare measures of the government.

CO 3: They are also familiarized with agriculture Communication, use of pesticides and fertilizers on crops and their impact on our health.

CO 4: The students are given necessary skills to interview a scientist.

Paper: Photography

CO 1: The students can create imagery which meets the requirements of different media.

CO 2: They are acquainted with different types of photography.

CO 3: The students will know about the various legal and ethical issues in photojournalism.

CO 4: The students will have a sound knowledge of technical aspects of photography.

Semester-IV**Paper: International Communication**

CO 1: The students will be made aware about political, cultural and social dimensions of Communication.

CO 2: They will be made aware about the UN's Universal declaration of human rights.

CO 3: They will be made aware about issues in international Communication.

Paper: Human Rights

CO 1: The students will come to know about the concept of human rights and its connection with media.

CO 2: The students will be made aware about the state and national commissions on human rights.

Paper: Film Studies

CO 1: The students will have knowledge about historical background of world cinema and Indian cinema.

CO 2: The students will be introduced to the pioneers of Indian cinema.

Paper: Intercultural Communication

CO 1: The students will be introduced to the concept of intercultural Communication by telling them about various cultures of the world and importance of Communication in uniting them.

CO 2: They will come to know about the efforts of UN and other institutions in the promotion on intercultural Communication.

CO 3: They students can have inclination towards research in the field of intercultural Communication.

Paper: Dissertation

CO 1: This dissertation can be a basis of Ph.D. for the student.

CO 2: The students will be motivated to do research based dissertation.

Department of Fine Arts

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Semester-I

Paper: Fine Arts (Theory & Practical)

- CO 1: This paper aims to shape the delicate minds of the new comers towards being sensitive, sensible with critical bent and acquiring the basics of fine Arts through the “Indian Art History”.
- CO 2: The paper provides an opportunity to the students to improve their creative skill with six limbs of Indian Painting (Shadanga).
- CO 3: The students will identify the techniques of Indian painting and it will help to understand the application of Colour, Texture, Light & Shade Perspective, Rhythm, and Balance & Harmony.
- CO 4: It will enable the students to understand the composition, Classical Mural tradition of Ajanta paintings & technique.
- CO 5: The students will identify & describe the emergence of earliest Indus Valley Civilization in India.
- CO 6: The practical application enables the students to understand & apply creative writing of different style, still life and Collage making.

Semester-II

Paper: Fine Arts (Theory & Practical)

- CO 1: The students will be acquainted with Mauryan Sculptures and Pillars-Sarnath, Rampurva, Parkham and Didarganj through Indian History of Art.
- CO 2: Paper will enable the students to understand and analyse the Indian sculptures of Karle and Bhaja caves.
- CO 3: It will enable the students to know the location of rich reservoir of Indian Art lying in the different parts of the country like Sanchi Stupa, Amaravati Stupa and Bharhut Stupa.
- CO 4: They will be able to analyze Kushana period in Mathura Art and Gandhara Art.
- CO 5: The practical work outlined in the syllabus will help the students to study different types of still life objects and will impart knowledge to understand proportion, volume, texture and light & shade.
- CO 6: It will enhance the student's ability for creative posters on social awareness.

Semester-III

Paper: Fine Arts (Theory & Practical)

- CO 1: Paper will help the students to evaluate consolidation of the Classical Gupta Sculpture of India-Mathura and Sarnath.
- CO 2: They can analyze Post Classical Sculptures of Ellora, Elephanta and Mahabalipuram.
- CO 3: The students will be able to analyse various Chola Bronzes Sculptures and its technique.
- CO 4: The course will enable them to have inter-comparison of 2 dimensional and 3 dimensional designs based on folk forms.
- CO 5: They will understand the head study (Male/ Female) through structure, volume, proportion, texture, light and shade in Monochromatic Colour Scheme.

Semester-IV

Paper: Fine Arts (Theory & Practical)

- CO 1: They will be able to have the description of Early Indian Miniature Painting (Pala Paintings) related to Buddhism
- CO 2: The students will understand and can enhance their knowledge to grasp the western Indian Miniature Paintings (Jain Paintings) related to Jainism.

- CO 3: Students will acquire knowledge about Mughal Art (Painting) under Akbar and Jahangir.
- CO 4: Students will be able to classify Rajasthani Art (Painting) in Mewar, Bundi and Kishangarh.
- CO 5: The paper will enable them to study comparison between Kangra Art and Basholi Art.
- CO 6: The paper would enable the students to understand the practical art work-landscape through study of clouds, trees and foreground. The students will also understand the full life study (life/cast) through the study of muscles and bones.

Semester-V

Paper: Fine Arts (Theory & Practical)

- CO 1: The students will learn the skillful artistic creation by using techniques and methods appropriate to the intended result.
- CO 2: They will consider the role of art making in the larger social context related to Cubism and Surrealism
- CO 3: Students will develop artistic autonomy to identify and focus on their idea of Impressionism and Post-Impressionism.
- CO 4: They will develop a working knowledge of and relationship to art history criticism and theory.

Semester-VI

Paper: Fine Arts (Theory & Practical)

- CO 1: The students will evaluate the impact of British on Indian art with special reference to Company School of Art.
- CO 2: It will help to enhance the knowledge of artistic creation and activity of Bengal School which show the impact of socio cultural scenario of Bengal in late 19th C. A.D.
- CO 3: The students will learn the different trends of creation in the artistic way in the contemporary art of Early and Mid-20th C.A.D. with the help of artist's works like Amrita Shergill, Jamini Roy, Sobha Singh, and M.F. Hussain.
- CO 4: Student understands the basic principal of life study and color, concepts, media and formats and the ability to apply them.
- CO 5: The students will learn the use of drawing, two dimensional and color, beginning with basic studies and continuing throughout the degree program.

Name of the Programme: BFA-Bachelor of Fine Arts

Name of the Programme: BFA (Painting)

Semester-I

Paper: Drawing-I

- CO 1: The Students will learn sense of structure of human figures.
- CO2: Students will learn Knowledge of drawing & painting of flower, plants, & insects.
- CO3: Students will learn about the study of minerals.
- CO4: The students will learn the basic discipline of beautiful hand writing and sense of letter as well as basic study of calligraphy style in English and Hindi.
- CO5: They will learn to practice landscape & nature of clouds: through shading, rendering, hatching etc.

Paper: II Design 2D/ Color (Practical)

- CO 1: The students will familiarize their self with the concepts of color in art and to what ends artists use it.
- CO 2: The students will identify works with color, value, hue, etc. as predominant themes or techniques in the work
- CO 3: They create their own work that demonstrates an understanding of color.
- CO 4: They will understand of study of two dimensional space and its organizational possibilities

- CO 5: They will acquire the knowledge of elements of pictorial expression related to concepts of space and forms.
- CO 6: They will be developing an awareness of pictorial elements such as point, line, shape, volume, texture, light and color, Basic design problems.
- CO 7: They will learn about various types of objects (natural and man-made) with a view to transform them into flat pictorial images.

Paper: III Design 3D (Practical)

- CO 1: The students will learn to build basic structure in claylike spherical, conical and cylindrical.
- CO 2: They will acquire the knowledge related to process of cement and terracotta.
- CO 3: They will understand the term relief sculpture with the technique of shilpkar.
- CO 4: They will learn how the medium thermocol is useful in making any art work

Paper: IV Print Making (Practical)

- CO 1: The students will learn how to anticipate the process of gathering impressions with the various fundamental methods of taking prints.
- CO 2: The students will learn the observation of various surfaces and textures of natural and man-made things.
- CO 3: The course will acquire the knowledge of process of Lino, Wood and the techniques of taking prints.
- CO 4: The students will learn how to take prints in monochrome.

Paper: V History of Arts (Theory)

- CO 1: The students will evaluate the process of Prehistoric Art in India with its geographical areas with special reference to Bhim Bhetka Caves.
- CO 2: The students will learn to describe the various artistic skills of Indus Valley people in various artistic fields.
- CO 3: The Course provides an opportunity to the students to identify the socio cultural and artistic activities under Mauryan period. The emergence of Buddhism in Indian soil analyse by the students.
- CO 4: The students will evaluate the architectural details of Buddhist architecture and other features of Buddhism. They will also learn the ability to understand the different phases of Buddhism through art of sculpture in Bharhut
- CO 5: It will enable the students to understand the various styles of Buddhist sculptural art and its characteristics with the Jataka stories and other episodes of Buddha's life in Sanchi.

Semester-II

Paper: I Drawing (Practical)

- CO 1: The course will give the knowledge about drawing which is a form of visual art in which a person uses various drawing instruments to mark paper or another two-dimensional medium. Common methods of digital drawing include a stylus or finger on a touch screen device, stylus- or finger-to-touchpad, or in some cases, a mouse.
- CO 2: It will give the acquire knowledge of elements of perspective: study of basic solids, plan and elevation, main aspects of parallel and triangular perspective.
- CO 3: The students will learn the basic discipline of beautiful handwriting, sense of letter and basic study of calligraphy style in english and hindi.
- CO 4: They will learn to practice Gothic, Block Letters (Condense and Normal) type, its construction of letters and spacing. They will also practicing Roman type, its construction of letter and spacing

Paper: II Design 2d / Color (Practical)

- CO 1: The students will identify works with color, value, hue, etc. as predominant themes or techniques in the work

- CO 2: They will be developing an awareness of pictorial space- division of space form and relation with space observation of primitive, folk and miniature paintings as well as graphic designs.
- CO 3: The paper will develop an awareness of inter-relation of different shapes and forms relative values.
- CO 4: It will give the evaluation of understanding the color qualities in its variations of warm and cool colors, harmony and contrast.
- CO 5: The students will learn how to create colored designs with regular irregular forms Mosaic/Mural/Flat Gradation effect.
- CO 6: The course will give the knowledge to learn how to create space through form and color-Optical illusions. Handling of various types of material for pictorial organization and rendering, such as; Pencil, pen, brushes, water colors, poster paints, pastel crayon, inks, cellophanes, oil newsprint and other college material, gums and adhesives, wax crayon with inks, etc. A coordinated series is basic design problems with aesthetic and analytical approach.

Paper: III Design 3D (Practical)

- CO 1: The students will learn to build basic structure in claylike spherical, conical and cylindrical.
- CO 2: They will acquire the knowledge related to process of making wood block structure.
- CO 3: They will understand the term relief sculpture with the technique of Plaster of Paris.
- CO 4: They will learn how the medium metal sheet is useful in making any art work.

Paper: IV Print Making (Practical)

- CO 1: The students will learn how to anticipate the process of gathering impressions with the various things like rice paper, handmade paper etc.
- CO 2: The students will learn the observation of various surfaces and textures of various fabrics.
- CO 3: They will acquire the knowledge of process of Lino and the techniques of taking prints.
- CO 4: They will learn how to take prints in the process of screen printing.

Paper: V History of Arts (Theory)

- CO 1: The students will get the ability to understand the artistic creativity of sculptural art of Mathura and Gandhara under KushanaDyanasty.
- CO 2: They will be able to evaluate the knowledge about the artistic skills in terms of architecture, sculpture, painting and it will also enhance the ability of students to learn about the socio political scenario of Gupta dynasty especially in Mathura and Sarnath.
- CO 3: It will enable the students to know the techniques of wall painting, the nature of colors and modes of various themes in Ajanta and Bagh Caves
- CO 4: The students will analyse the various sculptural characteristics of art of Hoysallas and Badami

Semester- III

Paper:I History of Arts (Theory)

- CO 1: Curriculum will help the students to analyse the revival of Hinduism in Indian soil after the decline of Gupta Dynasty. They also evaluate the socio political scenario of India in Various places in Early Medieval period.
- CO 2: They can analyse post classical sculptures of Pallava, Ellora and Mahabalipuram
- CO 3: The students will be able to understand the technique of various Chola Bronzes Sculptures.
- CO 4: The students will also learn the ability to understand the architectural details of hindu temple and its types. The various kinds of sculptural activities enhance the structure of temple
- CO 5: The students enhance their ability by learning the sculptural art during ChandellaDynasty.

Paper: II Aesthetics (Theory)

- CO 1: Paper will enable students to classify the growth of art, their functions and aims of art.
- CO 2: Students can analyse the classification development of the categories of art- Visual and Performing Arts. It will enable them to analyse the relationship between visual and performing arts.
- CO 3: Students would be able to identify, describe and compare/contrast between art and craft.
- CO 4: Students will be capable to understand the elements of art-line, form, colour, texture and tone.
- CO 5: Students will be able to identify &analyse the key facts of principles of art-Balance, Harmony, Perspective, Emphasis, Rhythm and Movement.

Paper: III Method and Materials (Theory)

- CO 1: The Course explains the composition and role of the importance of the study of method and materials.
- CO 2: Students will learn about levels, role and responsibilities of the deterioration of painting and beautiful materials.
- CO 3: Students will acquire knowledge about the nature and characteristics of various drawing materials- pencil and pen drawing, charcoal drawing, black and red chalk-drawing.
- CO 4: Students can analyse and describe the development of painting materials-water colour painting, oriental ink painting and oil painting.
- CO 5: Students will be capable of understanding the crayon and pastel Gouache.

Paper: IV Portrait (Practical)

- CO 1: The students will understand the construction of skull, planes and masses of head.
- CO 2: The students will acquire the knowledge to learn the process of creating the details such as eyes, mouth, nose, bust from different angles and eye levels etc.
- CO 3: The students will learn the process to create character of different shapes of different part and modelling.
- CO 4: The students will understand the process of light and shades in different mediums.

Paper: V Life Drawing (Practical)

- CO 1: The course will give the understanding of figure drawing, as it is the act of drawing a living person. Normally this means drawing a nude model in real life
- CO 2: The students will learn the process of study from life model to develop understanding of the human structure; volume in perspective and foreshortening proportion of male and female, rhythmic curves as uniting factors in all parts of the body; balance of parts, study of anatomy; various media; emphasis on delineation of character, various expressions and composition of figure in different settings and environment

Paper: VI Composition Painting (Practical)

- CO1: Students will learn about 2d and 3d paintings.
- CO2: The course will give the understanding of figure drawing, as it is the act of drawing a living person. Normally this means drawing a nude model in real life.
- CO3: Student practice the line, drawing, color, texture, form & space, balance of parts, study of anatomy; various media; emphasis on delineation of character, various expressions and composition of figure in different settings and environment.
- CO4: Students practice the detail study of animals, various media outdoor & indoor sketching. The study of eye level and perspective balance and rhythms to be used in composition is also practiced.

Paper: VII (B) Computer Graphics (Practical)

- CO 1: Students will learn about various computer software's of art world.
- CO 2: Students will work on art projects which help in increased productivity and efficiency of work
- CO 3: Students will learn about the process of creating technical drawing with the use of software

- CO 4: Students will learn about modelling techniques are used for creating 3D-printed objects.
CO5: It has many applications in the entertainment industry, most importantly video games and visual effects in movie production.

Semester-IV

Paper: I History of Arts (Theory)

- CO 1: They will able to have the description of Indian Miniature Painting and its emergence in India with special reference to Mughal, Rajasthani, and Pahari.
CO 2: The students will understand and can enhance their knowledge to grasp the Techniques used in different phases of Miniature art of India and its subject matter and coloristic approach.
CO 3: Students will acquire knowledge about art of Mughal under Akbar and Jahangir
CO 4: Students will be able to classify the style of Rajasthani Art especially Mewar, Bundi and Kishangarh.
CO 5: The paper will enable the students to know the style of Kangra and Basohli Art in details.
CO 6: They will learn the emergence of European Impact in social scenario and in the artistic activities of Indian art.
CO 7: The students will enhance their knowledge by knowing about folk art of West Bengal, its techniques and emergence of Kalighat painting as a source of new style in Indian art.
CO 8: The students will learn the temple wall paintings of Tanjore with its techniques, Colors and style.

Paper: II Aesthetics (Theory)

- CO1: It will help the students to understand the role of art.
CO2: The students will understand the role of art in human life.
CO3: They will understand the relationship between art & morality.
CO4: They will learn difference between art & communication.
CO5: They will understand detail study of art & expression.

Paper: III Method and Materials (Theory)

- CO 1: The students will understand the meaning of Varnishes and its various types
CO 2: The students will acquire knowledge of Glues
CO 3: The students will learn the process of Preparation of Canvases
CO 4: The students will understand the various techniques of oil paints and oil, drying oils, thinners and their uses in the field of art especially in painting.

Paper: IV Portrait (Practical)

- CO 1: The students will understand the construction of skull, planes and masses of head.
CO 2: The students will acquire the knowledge to learn the process of creating the details such as eyes, mouth, nose, bust from different angles and eye levels etc.
CO 3: The students will learn the process to create character of different shapes of different part and modelling.
CO 4: The students will understand the process of perspective and foreshortening in figure.
CO 5: The Students will learn the handling of colors in various ways which suitable to portraiture.

Paper: V Life Drawing (Practical)

- CO 1: The course will give the understanding of figure drawing, as it is the act of drawing a living person. Normally this means drawing a nude model in real life
CO 2: The students will learn the process of study from life model to develop understanding of the human structure; volume in perspective and foreshortening proportion of male and female, rhythmic curves as uniting factors in all parts of the body; balance of parts, study of anatomy; various media; emphasis on delineation of character, various expressions and composition of figure in different settings and environment

Paper: VI Composition Painting (Practical)

- CO1: Student learn about the 2d and 3d paintings
- CO2: Student learn about the Detail study of elements of arts
- CO3: Student learn about the study of line, drawing, color, texture, form & space
- CO4: Student learn about the compositional exercise based on objects
- CO5: Student learn about the animals, various media outdoor & indoor sketching

Paper: VII (B): Computer Graphics (Practical)

- CO 1: CAD allows artists to view art works on virtual models and in various colors and shapes, thus saving time by requiring fewer adjustments of prototypes and samples later.
- CO2: Software can help students draw, create logo, art, models to create patterns, adjust sizes and even determine fabric colors.
- CO3: They can also easily adapt a single art work to varying materials and patterns, and build upon and alter existing art works to create new pieces.
- CO4: Software can help students draw, create textures, patterns, adjust sizes and even determine acrylic colors. By Introducing this technological aspect will enable students to understand a lot better and try various combinations in their design.

Semester- V**Paper: I History of Arts (Theory)**

- CO 1: The students will able to identify and define world's earliest work of art in the western counterpart including Paleolithic, Mesolithic and Neolithic Revolution. They learn how the people used their creativity in the making of various tools and paintings.
- CO 2: Students can analyse the artistic characteristics of Greek Civilization with the help of their geographical settlements, their knowledge of making sculptures, pottery and other art works.
- CO 3: Students would be able to learn the characteristics of Roman Empire and their sculptural art forms in different mediums and their techniques of painting.
- CO 4: Students will be capable to understand the key facts of Christianity in the Europe by making the Catacombs, illuminated manuscripts and other details of architecture.
- CO 5: Students will able to understand the formation of Cathedrals with huge sculptures and paintings which show the skills and mastery of artists of Gothic period.

Paper: II Aesthetics (Theory)

- CO 1: The students will understand the concept that art is the expression of a man's feelings and imagination through a medium. When both are given a form, it is called art.
- CO 2: It will help the students to understand the meaning of artist has total freedom to deny reality because they are supposed to be the creator of beauty.
- CO 3: The course will attract the students to understand an artwork, e.g. Van Gogh - Sunflower painting.
- CO 4: The students will understand the Theory of Rasa & Bhava given by different philosophers Anand Vardhan, Bharat Muni, Abhinav Gupta and Six limbs of Indian Paintings (Shadangas).
- CO 5: The students will evaluate the Fundamentals in Indian Art as in Chitrasutra and Pratimalakshana of Vishnudharmottaram, Shilparatna, Sukranitisara. They also understand Indian concept of beauty according to Veda and Literature.

Paper: III Method and Materials (Theory)

- CO 1: Students will understand the terminology background, a ground is the very first layer of paint (or other wet medium) applied to an artwork. It is an undercoat, which can either be covered entirely by subsequent media, or left visible in the final work. Using a ground has several practical advantages, as well as some important aesthetic ones
- CO 2: It will also help the students to understand three different types of colors: primary, secondary, orange, and purple Classification of colours

CO 3: The course will give the acquire knowledge of sources, characteristics and durability of pigments, causes of colours changing, priming and ground recipes

Paper: IV Portrait (Practical)

CO 1: The students will understand the construction of skull, planes and masses of head.

CO 2: The students will acquire the knowledge to learn the process of creating the details such as eyes, mouth, nose, bust from different angles and eye levels etc.

CO 3: The students will learn the process to create character of different shapes of different part and modelling.

CO 4: The students will understand the process of perspective and foreshortening in figure.

CO 5: The Students will learn the handling of colors in various ways which suitable to portraiture.

CO 6: The students will learn the creation of various features along with exercising various expressions and gestures of facial and muscular form respectively.

Paper: V Life Drawing (Practical)

CO 1: The students will acquire the knowledge to understand the various proportions of human anatomy by using various gestures and postures in human anatomy.

CO 2: The course will also give the knowledge to students about study from life model to develop understanding of the human structure; volume in perspective and foreshortening by using various mediums and techniques.

CO 3: The students will learn the technique that life drawing is a drawing of the human figure from observation of a live model. A figure drawing may be a composed work of art or a figure study done in preparation for a more finished work such as a painting.

Paper: VI Composition Painting (Practical)

CO1: Student learn about the Study of 2d and 3d paintings

CO2: Student learn about the study of elements of arts

CO3: They understand the line, drawing, colour, texture, form & space

CO4: They acquire knowledge about the compositional exercise based on objects

CO5: They learn about the of animals, various media outdoor & indoor sketching

Paper: VII (B): Computer Graphics (Practical)

CO 1: CAD allows for the easier development of products and product management integration.

CO2: It also allows for greater modelling and even provides a basis for virtual networking.

CO3: Students learn the ability to produce accurate art works; drawings can be created in 2D or 3D and rotated; other computer programmers can be linked to the design software.

CO4: Students will learn about create the layout of the business card, poster, greeting card and much more.

CO5: Students will learn about the process of creating technical drawing with the use of software

Semester- VI

Paper: I History of Arts (Theory)

CO 1: Students will analyse the emergence of new artistic art movement Renaissance with detailed views on social political scenario of Europe.

CO 2: The students will learn about the artistic values and views of the genius of High Renaissance.

CO 3: It will help the students to enhance their knowledge about the emergence of Baroque art as new artistic activity in different area of Europe with different style, medium and themes.

CO 4: Students will acquire the knowledge about Neo Classicism through the theme, style, and works of art made by the artists.

CO 5: The students will evaluate the tem Romanticism in details with the works of different artists in various places of Europe.

Paper: II Aesthetics (Theory)

- CO1: The students will understand the Theory of western aesthetics.
- CO2: They will do detail study of aesthetics during Greek classical Period
- CO3: They will understand about the views of Greek philosophers on beauty.
- CO4: The students will learn the relationship between art & society
- CO5: The students will understand the art & society aesthetics.

Paper: III Method and Material (Theory)

- CO1: Students learn about the Knowledge of oil colors & how to apply oil colors & Acrylic colors.
- CO2: Students learn about the detail study of glazes.
- CO3: They learn about the knowledge of distemper.
- CO4: They will understand the difference between Plano graphics and intaglio.
- CO5: They get knowledge about new wood and two color painting.

Paper: IV Portrait (Practical)

- CO 1: The students will understand the construction of skull, planes and masses of head.
- CO 2: They will acquire the knowledge to learn the process of creating the details such as eyes, mouth, nose, bust from different angles and eye levels etc.
- CO 3: They learn to give emphasis on developing the concept of drawing.
- CO 4: They will understand the process of perspective and foreshortening in figure.
- CO 5: They will learn the handling of colors in various ways which suitable to portraiture.

Paper: V Life Drawing (Practical)

- CO 1: It will help the students to understand the difference between male and female human anatomy structure
- CO 2: The paper will also give the knowledge about the using of various view angles of live model and create full composition.
- CO 3: The students will learn the technique that life drawing is a drawing of the human figure from observation of a live model. A figure drawing may be a composed work of art or a figure study done in preparation for a more finished work such as a painting.
- CO 4: It will also help to understand the creation of human anatomy in natural light and artificial light.

Paper: VI Composition Painting (Practical)

- CO1: They will acquire the knowledge of 2D and 3D paintings
- CO2: They do the Detail study of elements of arts
- CO3: They will learn about the study of line, drawing, color, texture, form & space
- CO4: They will understand about the compositional exercise based on objects
- CO5: They will learn about the various media of outdoor & indoor sketching

Paper: VII (B): Computer Graphics

- CO 1: It opens the doors for independent artists to make their art projects in accurate manner.
- CO2: Software can help students draw, create textures, drape models to create patterns, adjust sizes and even determine fabric colors. By Introducing this technological aspect will enable students to understand a lot better and try various combinations in their design.
- CO3: Latest updates versions of the course will teach to the students and it will improve productivity revise errors, better quality work in less time
- CO4: This paper leads to success in education and employment since computer skills are integral to all areas of study and work.

Semester- VII

Paper: I History of Arts (Theory)

- CO 1: The paper will give the thorough knowledge of modern art of India with special reference to Bengal School of Art.
- CO 2: It will give the acquire knowledge of emergence of new artistic activities in India with different styles of art in the early 20th century A.D.
- CO 3: The students will understand the knowledge of western art movements in Europe.
- CO 4: It will give the ability to know the concept of Impressionism by the works of their artists like Monet, Manet, Renior, and Degas.
- CO 5: The students will learn the artistic techniques used by the artists of Post Impressionism with their works.
- CO 6: The students will understand the critical analysis of the subject matter and techniques of Fauvism.

Paper: II Aesthetics (Theory)

- CO 1: The course will give the ability to understand the concept of creative process.
- CO 2: The students will acquire the knowledge the role of imitation in art.
- CO 3: The students will understand the role of subconsciousness in art.
- CO 4: The students will learn the theories related to works of art with special reference to form and content and expressiveness.
- CO 5: The students will learn the process of intuition in art.

Paper: III Method and Materials (Theory)

- CO 1: They will understand the technique and material of Fresco wall painting.
- CO 2: The paper will give the knowledge to learn about the process of Jaipur method.
- CO 3: They will understand the technique, its color scheme of Ajanta Painting.
- CO 4: They will acquire the knowledge related to methodology of Mosaic.

Paper: IV Portrait (Practical)

- CO 1: They will understand the construction of skull, planes and masses of head.
- CO 2: The students will acquire the knowledge to learn the process of creating the details such as eyes, mouth, nose, bust from different angles and eye levels etc.
- CO 3: They learn to give emphasis on developing the concept of drawing.
- CO 4: They will understand the process of perspective and foreshortening in figure.
- CO 5: They will learn the process of demarcation of character and its expression, gesture, posture, drapery and individualistic style of execution.
- CO 6: The students will learn the creation of various features along with exercising various expressions in facial and muscular form.

Paper: V Life Drawing (Practical)

- CO 1: The students will learn how to simplify the form and show different kind of emotions.
- CO 2: It will also help the students to use different textures in body rendering.
- CO 3: It will also help to understand the creation of human anatomy in natural light and artificial light.
- CO 4: The students will learn the technique that life drawing is a drawing of the human figure from observation of a live model. A figure drawing may be a composed work of art or a figure study done in preparation for a more finished work such as a painting.

Paper: VI Composition Painting (Practical)

- CO1: They will learn about the Study of 2d & 3d paintings
- CO2: They will understand the study of elements of arts
- CO3: They will acquire the knowledge of line, drawing, colour, texture, form & space
- CO4: They will learn about the Compositional exercise based on objects

CO5: They will learn about the of textures of various media of outdoor & indoor sketching

Paper: VII (B): Computer Graphics (Practical)

CO1: Using CAD software, designers can create new sketches more quickly and more precisely. They can also easily adapt a single design to varying materials and patterns, and build upon and alter existing designs to create new pieces

CO2: The process of designing buildings is dominated by computers. Software tools used in the design phase can automate repetitive calculation and drawing tasks, help find new design solutions and provide a high degree of precision. This optimization makes the design process faster, clearer and more effective.

CO3: CAD allows for the easier development of products and product management integration. It also allows for greater modelling and even provides a basis for virtual networking. In the designing world, CAD is extremely important and widely used to design and develop products to be used by consumers

CO4: They will learn about the create a vast range of high-quality marketing content, including designing content for your social media profiles such as Face book, twitter etc. producing animated banner ads and creating a stylish and innovative design.

CO 5: They will learn about create the layout of the business card, poster, greeting card and much more.

Semester- VIII

Paper: IHistory of Art (Theory)

CO 1: It will enhance the student's ability to learn about the Progressive artist group.

CO 2: It will help the students in understanding various theories (groups) of Indian Art-Delhi, Calcutta and Madras (CholaMandalam, Shilpi Chakra).

CO 3: They will be able to learn about the nature of various western art movements and its impact.

CO 4: They will acquire significant knowledge and relevance about Cubism Futurism, Dadaism and Surrealism through their prominent artists-Picasso and Braque, Boccioni, Duchamp and Salvador Dali.

CO5: It will help to improve understanding the meaning, nature and scope of the Abstract art-WassilyKandinsky and Piet Mondrian for young artists through their art.

CO 6: Students can know about the Artistic change due to the working of Pop Art through their artists- Andy Warhole and Roy Lichenstein.

Paper: IIAesthetics (Theory)

CO 1: It will enhance the student's ability to understand the theories related to response and appreciation with empathy pleasure.

CO 2: They will able to classify the appreciation in work of art.

CO 3: They will evaluate how narration is important in work of art from the prehistoric art to till contemporary art.

CO 4: They will learn to classify the term abstraction in art with examples of works offew artists.

Paper: III Method and Material (Theory)

CO 1: The students will learn about Egg Temperatechnique and its main types.

CO 2: This paper will give complete knowledge about the techniques of Ceramic and Terracotta tiles.

CO 3: They will understand the care of oil paints.

CO 4: It will acquire the knowledge about removing varnish, retouching and cleaning of oil paints

CO 5: They will learn the process of serigraphy with stencil application.

Paper:IV: Portrait (Practical)

- CO 1: The students will understand the construction of skull, planes and masses of head.
- CO 2: The students will acquire the knowledge to learn the process of creating the details such as eyes, mouth, nose, bust from different angles and eye levels etc.
- CO 3: The students learn to give emphasis on developing the concept of drawing.
- CO 4: The students will understand the process of perspective and foreshortening in figure.
- CO 5: The students will learn the process of demarcation of character and its expression, gesture, posture, drapery and individualistic style of execution.
- CO 6: The students will learn the creation of various features along with exercising various expressions in facial and muscular form.

Paper: V Life Drawing (Practical)

- CO 1: The paper will give the understanding of figure drawing, as it is the act of drawing a living person. Normally this means drawing a nude model in real life
- CO 2: They will learn the process of study from life model to develop understanding of the human structure; volume in perspective and foreshortening proportion of male and female, rhythmic curves as uniting factors in all parts of the body; balance of parts, study of anatomy; various media; emphasis on delineation of character, various expressions and composition of figure in different settings and environment
- CO 3: The students will learn the technique that life drawing is a drawing of the human figure from observation of a live model. A figure drawing may be a composed work of art or a figure study done in preparation for a more finished work such as a painting.

Paper: VI Composition Painting (Practical)

- CO1: They learn about the Study of 2d and 3d paintings
- CO2: They acquire the knowledge of study of elements of arts
- CO3: They learn about the line, drawing, colour, texture, form & space
- CO4: They understand the Compositional exercise based on objects
- CO5: They learn about the process of various media in outdoor& indoor sketching

Paper: VII (B) Computer Graphics (Practical)

- CO1: They will learn about logo design, brochure design, flex board, pamphlets etc.
- CO2: They will understand the knowledge of various tools of Adobe Photoshop.
- CO3: They will learn the process of masking and its types.
- CO4: This paper will give acquire knowledge about the software in the creation of different print media.

Department of B. Design**Name of Programme: Bachelor of Design****(Specialization: Fashion/Textile/ Interior)****Programme Outcomes**

- PO 1: The programme provides opportunity to the students to select their area of specialization i.e. interiors, fashion and textiles and can explore their creativity according to their area of interest
- PO 2: Programme familiarizes students with the nuances of design which make them effective communicator through brush and colours.
- PO 3: The programme enhances the confidence of the graduates through carefully chosen curriculum with emphasis on practical learning, activities and close interaction with designers, craftsmen, teachers and fellow students.
- PO 4: They learn about the history and development of design forms and the changing technologies that affect the crafting of messages leading up to and including contemporary designs.

Programme Specific Outcomes

- PSO 1: Our students demonstrate their talent and dedication by consistently receiving recognition in district, state and national competitions.
- PSO 2: They develop confidence in their ability to analyze forms, shapes and various types of design artifacts; understand cultural and historical contexts, and use this understanding to inform the development and evaluation of their work.
- PSO 3: Students are introduced to many of the central themes of critical theory as applied to visual culture in general, and to fashion, textile and interior design in particular.
- PSO 4: Students are introduced to theories and methods to facilitate clarity and understanding using a wide range of complex textual and visual information.
- PSO 5: In projects, students learn processes for various modes of visualization and content including data, time-based sequences, designing and its production.

Course Outcomes

Semester –I

Paper: I Drawing

- CO 1: After study this course student will get the knowledge and skills in the use of basic tools, techniques.
- CO 2: Student will learn the process to work from concept to finished products, including knowledge of paints, surfaces, two dimensional and three dimensional images.
- CO 3: To learn various effects, texture and basics of art and design world.

Paper: II Colour

- CO 1: Student will learn the knowledge of the using colour in the various designs.
- CO 2: They will acquire the knowledge about colour theories and learn the scientific reasons behind that.
- CO 3: They will understand the relation between design elements and colour importance.

Paper: III Basic Design

- CO 1: To learn various elements of designs
- CO 2: They gain the knowledge to implement design details in the art works.
- CO 3: They learn the various design detail and its use in fashion/textile and interior world.

Paper: IV Workshop–I

- CO 1: To learn about various materials of art world and its handling
- CO 2: To give materials a new shape using various techniques.
- CO 3: Encompasses the development of art skills.

Paper: V History of Art -I

- CO 1: Ability to learn art of history in its entirety from pre-history to present.
- CO 2: Ability to analyse the formal techniques stylistic, compositional characteristics of works of art.
- CO 3: Ability to advance research in the field.

Paper: VI Aesthetics and Art Appreciation

- CO 1: Ability to apply fundamental concepts of aesthetics towards the interpretation of art.
- CO2: Students learn various art theories
- CO3: They learn about the communication concepts of art and its various Indian and western concepts.

Semester –II

Paper: I Drawing & Illustration

- CO 1: It helps students adopt a better understanding of the people around them and learn to build stronger relationships.
- CO 2: Learning the Design and illustration fosters creativity of the student.

CO 3: Design is inherently creative.

Paper: II Colour-II

CO 1: Colour engages and inspires students, facilitating the creative and critical thinking that's so important for brainstorming original ideas and developing proficiency in complex subjects.

CO 2: Environment has a huge influence on a student's attention, creativity, concentration, and calmness, which means that designers play a significant role in helping students to learn colour aspects for fashion and interior designing.

CO 3: Colour palettes can feature a variety of shades of the same colour to set a specific mood, or layered with other colours for a more dynamic environment.

Paper: III Design & Communication

CO 1: This course help student to learn the aspects that communication design is a mixed discipline between design and information-development which is concerned with how media intervention such as printed, crafted, electronic-media or presentations communicate with people.

CO 2: To learn various elements of designs and to implement those in the art works

CO 3: Students of communication design learn how to create visual messages and broadcast them to the world in new and meaningful ways.

Paper: IV Workshop-II

CO 1: This course aids in the learning process by allowing the student to explore the knowledge independently using various art material.

CO 2: This course is to improve students' knowledge, abilities, and skills, to monitor their assimilation of information, and to contribute to their overall development and upbringing by using various special design materials in fashion and interior world.

CO 3: To learn about various materials of art world and to give them a new shape using various techniques.

Paper: V History of Art-II

CO 1: Ability to learn art of history in its entirety from pre-history to present.

CO 2: Ability to analyse the formal techniques stylistic, compositional characteristics of works of art.

CO 3: Ability to advance research in the field.

Paper: VI Computer Application

CO 1: Software's help the students to explore the design world as maximum work is done on software's in design world.

CO 2: Latest updates versions are taught, it improve productivity Revise errors, better quality work in less time

CO 3: This course leads to success in education and employment since computer skills are integral to all areas of study and work.

Semester III

Paper: I Design Development

CO 1: Learn about developing the designs whatever is planned or thought, an implementation to the thinking is given.

CO 2: Various techniques & styles are explored.

CO 3: Students learn about figure drawings.

Paper: II Workshop

CO 1: Student learn about various fashion/interior and textile material

CO 2: Student learn about various machines use in the design world

CO 3: Various weaving, stitching, carpentry techniques and make projects.

Paper: III Computer Aided Design

- CO 1: Student learn about various computer software's of design world
- CO 2: Student work on design projects which help in increased productivity and efficiency of work
- CO 3: Student learns about the process of creating technical drawing with the use of software.

Paper: IV Market Survey

- CO 1: Students learn about various materials available of the market for designing of the products
- CO 2: They understand about new markets, upcoming trends and demand of the consumers
- CO 3: Students get knowledge about various industries through industrial visits.

Paper: V Technical Theory

- CO 1: Students learn about various technical aspects of fashion/ textiles and interior
- CO 2: They learn about various technical details of machinery and its manufacturing
- CO 3: The course help the students for understanding various theories and principles of the design world.

Paper: VI Historical Study of Fashion & Textile Designing/ Interior Designing-I

- CO 1: In this student learn about various traditional and contemporary textiles, costumes, architecture, fashions, styles of the India and other parts of the world.
- CO 2: Various historical periods are also studied which help in the creation of projects.
- CO 3: The course comprehends the use of collection and interpretation of data.

Paper: VII Advertising & Marketing

- CO 1: After studying this course the student should be able to define about various advertising and marketing aspects of his/her designer products
- CO 2: It will be impart the practical knowledge of capital and revenue expenditure
- CO 3: To make student learn about various about marketing techniques to be an adopted to run the business effectively by using principles of marketing.

Semester IV**Paper: I Design Development-II**

- CO 1: The highly effective and superior study program not only brings you huge exposure, but also brings you a wonderful opportunity to improve your creativity skills.
- CO 2: The students learn designing skills that start with sketches that capture all the details of the design and thinking process.
- CO 3: It incorporates the design skills, development and creation of a garment or product, as well as the distribution and marketing of products.

Paper: II Workshop

- CO 1: The subjects covered in fashion design are: fashion illustration, garment construction, flat pattern technology, draping, textiles, design synthesis, life drawing, colour theory, designing collections.
- CO 2: A students learn about stitching skills and interior designing skills which help a student in earning a livelihood.
- CO 3: This course is important for a student and it helps them to interpret the designs and understand the design with technical ability.

Paper: III Computer Aided Design

- CO 1: CAD allows designers to view designs of clothing on virtual models and in various colours and shapes, thus saving time by requiring fewer adjustments of prototypes and samples later.
- CO 2: Software can help students draw, create woven textures, drape models to create patterns, adjust sizes and even determine fabric colours.
- CO 3: They can also easily adapt a single design to varying materials and patterns, and build upon and alter existing designs to create new pieces.

Paper: IV Market Survey

- CO 1: Students learn about materials availability in the market for designing of the products.
- CO 2: They get knowledge about new fashion forecasts, upcoming trends and demand of the consumers.
- CO 3: They learn about various industries through industrial visits.

Paper: V Technical Theory

- CO 1: To create technical designers, fashion coordinators, fashion stylists or fashion expert, Concepts of design are very important to learn so this subject helps them to know the technical details.
- CO 2: This course adds the art of applying design, aesthetics and natural beauty to clothing and its accessories. It is influenced by cultural and social attitudes.
- CO 3: The courses help the students for understanding various theories and principles of the design world.

Paper: VI Historical Study of Fashion & Textile Designing/ Interior Designing- II

- CO 1: It's important to understand art history in order to understand the history of fashion. Courses in the Philosophy of Art can also offer great tools for expressing your ideas and putting them into the right context.
- CO 2: Various historic design periods are also studied which help in the creation of Projects.
- CO 3: The course comprehends the use of collection and interpretation of data.

Paper: VII Business Studies –I

- CO 1: It is very important for the students to know about the existence of the products available there in the market and to learn about various marketing strategies.
- CO 2: Business Studies helps student to make more informed decisions in the everyday business of living. It gives you a better understanding of the world of work.
- CO 3: It encourages students to think about how and why people start up in business and how to handle it.

Semester V**Paper: I Design Process–I**

- CO 1: It provides a framework for students to practice design skills.
- CO 2: Design critiques, student presentations, team projects, and deadlines are all opportunities for a student to improve their skills.
- CO 3: It helps students adopt a better understanding of the people around them and learn to build stronger relationships. Design fosters creativity. Design is inherently creative. By tackling old problems in new ways, students get the chance to do a double take on their own preconceptions.

Paper: II Workshop–III

- CO 1: This course is an important Life Skill and is the vehicle to teach self-confidence through skill building.
- CO 2: This course helps a student to develop fine motor skills, improves focus and concentration and teaches the importance of patience and self-control.
- CO 3: By learning this course a student get to make something useful and can make tons of one-of-a-kind accessories, tote bags, scarves and more! Designing not only enables the student to create beautiful and heirloom items that can be passed down, they are the same skills needed to mend and alter garments and fabrics.

Paper: III Computer Aided Design

- CO 1: CAD allows for the easier development of products and product management integration.
- CO 2: It also allows for greater modelling and even provides a basis for virtual networking. In the designing world, CAD is extremely important and widely used to design and develop products to be used by consumers.

CO 3: Students learn the ability to producing very accurate designs; drawings can be created in 2D or 3D and rotated; other computer programmers can be linked to the design software.

Paper: IV Market Survey

CO 1: This Course helps to gather data on customers and potential customers.

CO 2: It aims to provide business decision making skills.

CO 3: The students learn about market trends which reduces the risks involved in making these decisions.

Paper: V Technical Theory

CO 1: Students learn about various technical aspects and updated technologies of fashion/ textiles and interior.

CO 2: Students learn about various technical details of machinery and its manufacturing.

CO 3: The courses help the students for understanding various theories and principles of the design world.

Paper: VI Historical Study of Fashion & Textile Designing/ Interior Designing -III

CO 1: This course allows a student to learn about various state and country history and to create modern and contemporary designs for today's world.

CO 2: This course helps to learn about ancient and old design principles and their reasons to use them.

CO 3: It helps to understand the chronological details for better designing skills.

Paper: VII Business Studies -II

CO 1: Studying business involves not only studying individuals, communities, and organizations; it involves assessing their needs and problems, as well as generating solutions.

CO 2: This subject will build a strong foundation for those students who wish to move on to further study and training in specialized areas such as management, international business, marketing, accounting, information and communication technology, or entrepreneurship.

CO 3: It will also provide practical skills for those who wish to move directly into the workplace.

Semester VI

Paper: I Design Process -II

CO 1: This course helps a student for incorporating design from the beginning allows all components of a product to work together seamlessly, providing a superior user experience.

CO 2: This course develops the ability to understand design is a plan or specification for the construction of an object or system or for the implementation of an activity or process, or the result of that plan or specification in the form of a prototype, product or process.

CO3: Student learn the process of creating a quick sketch involving considerable research, negotiation, reflection, modelling, interactive adjustment and re-design.

Paper: II Workshop -IV

CO 1: Designers often specialize in particular types of design field – for example, in men's, children's or sportswear, furniture or accessory designer. This role would normally involve: working to design instructions (known as a brief), analysing or predicting trends in fabrics, colours and shapes.

CO 2: Producing concept and mood boards (a collection of items to capture a mood, such as photos, fabric pieces and colour samples), developing basic shapes ('blocks') through patterns.

CO 3: Estimating costs for materials and manufacture, finding suppliers, supervising the making up of sample clothing items, making in-house presentations, for example to finance departments and merchandisers.

Paper: III Computer Aided Design

- CO 1: It opens the doors for independent designers who may have fewer employees and therefore can't waste time and resources doing sketch after sketch.
- CO 2: Software can help students draw, create woven textures, drape models to create patterns, adjust sizes and even determine fabric colours. By introducing this technological aspect will enable students to understand a lot better and try various combinations in their design.
- CO 3: Computer industry has got its new customer. Computer technology is making waves in the fashion design zone. From determining textile weaves to sizing designs; computers are a vital component of the fashion industry. It help student survives in fashion industry with technology.

Paper: IV Technical Theory

- CO 1: This course is highly important in designing that helps designers to make a sensible choice of choosing fabrics that complement their design.
- CO 2: This course study includes topics like dyeing, printing and weaving. Students are also taught about each fabric and its usage.
- CO 3: It will explain why certain textile fabrics make cool wearing apparel as well as give an impression of coolness when used as decoration. The matter of cleanliness and maintenance must also be estimated before purchasing when that is an important factor.

Paper: V Entrepreneurship Development Programme

- CO 1: Ability to develop a style that is distinctive, consistent and new ability to manage the process of communication on which fashion depends upon ability to manage strategic and marketing issues.
- CO 2: The entrepreneurship in fashion and apparel design should focus on opportunities emerging through creativity, preparing the graduates to work as freelancers or self-employed or creating small enterprise.
- CO 3: The framework of the entrepreneurial curriculum helps in the concepts of fashion and apparel industry with focus on design development process, fashion forecasting, production etc.

Paper: VI Exhibition Design & Display

- CO 1: It helps student to learn about new platform for a multi layered communication with the audience.
- CO 2: This paper focuses on museum fashion exhibitions from the designer's perspective: the opportunities and the benefits for the students themselves.
- CO 3: This course helps them to learn about the various exhibitions and display techniques.

Semester VII

Paper: I Design Process –III

- CO 1: Designers often work closely with garment technologists and sample machinists. The role could also involve liaising with manufacturers (often based overseas) to make sure designs are reproduced accurately.
- CO 2: This course helps designers to show off their talent to potential employers, they have to create a portfolio demonstrating their skills and creative sensibilities. Students can fill their portfolio with the work they've done during their degree program, so it's important for them to treat every assignment as if they were going to show their work to a future boss. Portfolios allow people to show off a range of skills, including their sketching, sewing, and pattern making abilities.
- CO 3: Students should also familiarize themselves with what goes on behind the scenes—such as finance, sales, and marketing—particularly if they want to have their own fashion business.

Paper: II Workshop V

- CO 1: This section provides a look at the earning potential of designers.
- CO 2: Producing concept and mood boards (a collection of items to capture a mood, such as photos, fabric pieces and colour samples), developing basic shapes ('blocks') through patterns.
- CO 3: Estimating costs for materials and manufacture, finding suppliers, supervising the making up of sample clothing items, making in-house presentations, for example to finance departments and merchandisers.

Paper: III Computer Aided Design

- CO 1: Using CAD software, designers can create new sketches more quickly and more precisely. They can also easily adapt a single design to varying materials and patterns, and build upon and alter existing designs to create new pieces.
- CO 2: The process of designing buildings is dominated by computers. Software tools used in the design phase can automate repetitive calculation and drawing tasks, help find new design solutions and provide a high degree of precision. This optimization makes the design process faster, clearer and more effective.
- CO 3: CAD allows for the easier development of products and product management integration. It also allows for greater modelling and even provides a basis for virtual networking. In the designing world, CAD is extremely important and widely used to design and develop products to be used by consumers.

Semester VIII**Paper: I Industrial Training**

- CO 1: Industrial Training is the important strategy to expose students to real work life situations and to equip them with the necessary skills that intensify their job. Industrial training program or training related program can be continuously improved through formal review and evaluation of its outcome.
- CO2: It is the organized way of improving and enhancing knowledge and skill set of designing students. It boosts the performance of students and helps them to meet career objectives.
- CO3: The industrial training program is important for designing students. It helps them to update and master their skills.

Paper: II Design & Display / Commercial Production

- CO 1: It also helps the student in improving their knowledge. It improves the versatility of the student and helps them in boosting their career.
- CO 2: It also boosts their confidence once they have the skills about the particular subject they have got training in. They help you implementing the theory into realistic area.
- CO 3: It involves the application of learned skills in an organization related to the students' major projects.

Department of Commerce and management

Name of Programme: B.Com.

Course Outcomes**Semester-I****Paper: Financial Accounting BCG 103**

- CO 1: The subject will enable the students to combine practical and theoretical knowledge of financial accounting.
- CO 2: They will be able to understand the uses and users of accounting information.
- CO 3: They will understand the applicability of accounting concepts, principles and conventions.
- CO 4: They will learn to record basic financial transactions and prepare financial statements by understanding different capital and revenue items

CO 5: The students will be able to prepare voyage accounts, departmental accounts, branch accounts, consignment and joint venture accounts which caters to the accounting needs of various organisations

Paper: Business Organisation BCG 104

CO 1: Students will know about different forms of organization and comparison of different business forms

CO 2: They will be able to learn the functioning of stock exchanges in India

CO 3: Students will be made aware of social responsibilities of the business and business ethics.

CO 4: It will provide them the knowledge about various trade associations working for betterment of businesses in India

CO 5: It also provide knowledge about government agencies that are helping entrepreneurs and SSIs

Paper: Business Communication BCG 105

CO 1: The subject is a key to transform effective communication skills in students as the emphasis are laid on eloquence of speech, erudition of writing, emphatic listening and expressiveness of body language.

CO 2: In addition, students are taught how to communicate effectively inside an organization through memos, office orders, circulars and notices.

CO 3: They will also grasp to communicate effectively with external stakeholders via business letter, sales letters, employment letters, complaint and adjustment letters.

CO 4: In present era of competition in job market, this subject offers useful tips and strategies for clear communication and thus, assists in securing a good job coupled with carrier advancement in future.

Semester-II

Paper: Advance Financial Accounting BCG 203

CO 1: Provide practical working knowledge of tally - account creation and data entry.

CO 2: It will provide awareness about partnership deed and its practical implications and usage.

CO 3: Students will be able to perform accounting of small business through single entry system.

CO 4: It will explain to students about different use of depreciation as a means of knowing true value of asset.

CO 5: It will provide them skills for maintenance of Partnership Accounts.

Paper: Commercial Law BCG 204

CO 1: This paper widens the knowledge of students regarding Contract Act, 1872 of India. Students may learn about the formation of a valid contract and various legal formalities to form a business contract.

CO 2: Students also understand about their rights being a consumer of goods by studying Consumer Protection Act, 1986.

CO 3: They will also become familiar of sales of goods –terms and conditions, rights of buyer and seller etc. from Sales of Goods Act,1930.

CO 4: Subject also helps them to develop understanding regarding formation of a limited liability partnership, its registration process, rights & duties of working partners & winding up etc. from Limited Liability Partnership Act, 2008.

CO 5: Students are able to seek knowledge of various relevant case studies regarding all the topics.

CO 6: Students are enriched with their contractual rights and obligations after the deep study of this subject.

Paper: Functional Management BCG 206

CO 1: The subject focuses on enhancing managerial efficiency by teaching the students objectives, needs, principles and practices of management.

- CO 2: In addition, corporate social responsibilities and business ethics make the students aware that the business should preserve those policies and decisions which are desirable in terms of objective and values of society to protect the interest of all the stakeholders.
- CO 3: Students apprehend the different facets of management such as personnel management, production management and marketing management which create deep understanding about the intricacies of management.
- CO 4: This subject also assists the students to adopt management as profession in future.

Semester-III

Paper: Corporate Accounting BCG 303

- CO 1: This subject will apprehend accounting treatment of equity shares and preference shares.
- CO 2: It also explains the procedure of issuing and redemption of debentures.
- CO 3: They will be imparted knowledge for the preparation of final accounts of limited liability companies.
- CO 4: Explains the theoretical and practical aspects of accounting treatment of amalgamation of companies & internal reconstruction.
- CO 5: Provide knowledge about practical aspects of preparation of final accounts of banking companies.
- CO 6: To impart practical knowledge relating to the preparation of final accounts of insurance companies.

Paper: Company Law BCG 304

- CO 1: Students will have knowledge about corporate laws, their provisions and implications.
- CO 2: Students will have a deep understanding of new Company Law amended in 2013 followed by new policies in the Act.
- CO 3: It develops exemplary knowledge of current trends, legislatives & regulatory developments.
- CO 4: Students will learn about provisions related to listing requirements in recognized stock exchanges.
- CO 5: Provide an insight into resolutions, registration procedures.

Paper: Financial Management BCG 305

- CO 1: The students will be able to understand both the theoretical & practical role of financial management in business corporations.
- CO 2: They would be able to understand importance of risk within context of financial decision making.
- CO 3: The students will learn to analyse the different sources of finance and their cost.
- CO 4: The subject will make the students acquainted with deciding on optimal capital structure.

Paper: International Business BCG 306

- CO 1: Students will be able to understand the basic concepts of international finance, marketing and also the various environments in which international businesses operate.
- CO 2: This subject will give them an overview of the unique issues and challenges faced by firms involved in international activities.
- CO 3: Students will acquire deep knowledge of different theories and techniques of this business discipline.
- CO 4: They will be able to analyse the risks and opportunities dispensed for global businesses and develop practical approach to frame effective strategies and take good business decisions.
- CO 5: They will be able to gauge the impact of legal and regulatory compliance on a firm's trade inventiveness.

Paper: Business Environment BCG 307

- CO 1: Define and understand the various nuances of the business environment.
- CO 2: Understand the role of socio-cultural factors and political – legal system on the conduct of business in the country.
- CO 3: Realize the importance of micro and macro environment on business decisions.
- CO 4: Understand how an entity operates in different business environment.
- CO 5: Demonstrate and develop conceptual framework of business environment.

Semester-IV

Paper: Goods and Service Tax BCG 403

- CO 1: Students will learn about the constitutional aspects and implementation of GST in India.
- CO 2: They will be able to understand how to register under GST and eligibility for registration.
- CO 3: They will get knowledge about the concept of supply of goods and service and its various types.
- CO 4: Students will learn the steps of computation of GST and payment of GST.
- CO 5: They will learn about the various GST return forms used by the GST payers.
- CO 6: They will also be enabled to understand various concepts like GST portal, GST suvidha providers and invoice uploading.

Paper: Industrial Law BCG 404

- CO 1: Students will get equipped with the latest knowledge of laws relating to Industry in India.
- CO 2: They become aware about Factory Act,1948 by studying the provisions relating to health, safety & welfare of workers.
- CO 3: Students are provided the knowledge of the formation of trade unions, rights and duties of its members and functioning of trade unions.
- CO 4: They will understand about the employee state insurance schemes and various benefits available to the workers like health and medical benefits provided by the govt.
- CO 5: Learners also come to know about the causes and reconciliation of industrial disputes between employer and employee, among employees and among employers. This is highly required for smooth functioning of the business.
- CO 6: They also get knowledge about the workmen's rights under Workmen Compensation Act, 1923 in India. They also come to know about the way compensation is given by the employers to their workmen in case of accidental injuries, occupational health diseases etc.

Paper: Principles and Practices of Banking and Insurance BCG 405

- CO 1: Know about the various banking institutions and banking products.
- CO 2: Understand the nature of regulation in banking industry.
- CO 3: Awareness of various banking innovations after nationalization.
- CO 4: Gain the knowledge of insurance and various assurance products.
- CO 5: Understand the various elements of regulation and control in the insurance industry.
- CO 6: Understand the principles, provisions that govern the life and non-life insurance contracts.

Paper: Cost Accounting BCG-406

- CO 1: It will make the students aware about various elements of cost.
- CO 2: Students will learn various methods of costing.
- CO 3: It will develop the understanding relating to overhead cost and its classification allocation.
- CO 4: The concept activity-based accounting will also be discussed.
- CO 5: Students will also gain knowledge about cost control methods like marginal costing, budgetary control, standard costing and break-even analysis.

Semester-V

Paper: Management Accounting BCG 503

- CO 1: Knowing about management accounting and its objectives.
- CO 2: It will help the students to understand the ways to make financial analysis.
- CO 3: Explain uses of ratios for analysing the profits and position of the business.
- CO 4: Students will be able to understand the concept of responsibility accounting to establish centres to fix responsibility.
- CO 5: Use of fund flow statement and cash flow statement to manage the resources.
- CO 6: Use of reporting system to inform the various levels of management.

Paper: Direct Tax Law BCG 504

- CO 1: The subject will explain the concept of Indian Income Tax system and scope of the Act to students.
- CO 2: It will also develop the practical skill computation to taxable income under various heads like; - salaries, house property, business and profession.
- CO 3: Students will learn various deductions that are allowed from taxable income.
- CO 4: It will also conceptually clarify the residential status and tax liability of an individual, firm, company or a cooperative society.
- CO 5: Students will be able to understand and estimate agricultural income with the help of examples.

Paper: Auditing BCG 505

- CO 1: The students will get knowledge about the concept and principles of Auditing, audit process and assurance standards and need for an independent or external audit.
- CO 2: They will learn about the various duties, responsibilities, rights and liabilities of auditors in regard to auditing.
- CO 3: They will be able to understand the meaning of concepts that are fundamental to auditing and assurance services such as 'independence', 'evidence', 'risk', 'materiality', 'internal check', 'internal audit', 'internal control' etc.
- CO 4: They will be capable to describe the processes involved in auditing as well as various audit tests and other assurance services and distinguishes between compliance and substantive testing
- CO 5: They will understand the content and importance of the audit reports provided at the end of the audit or assurance service and discusses the issue of legal liability arising from audits and other assurance services
- CO 6: They will acquire information about Tax Audit, Social Audit, Environmental Audit, Electronic Data Processing and other current developments in auditing.

Paper: Contemporary Accounting BCG 511

- CO 1: Students will be able to understand various contemporary issues in accounting.
- CO 2: They will learn about price level accounting, human resource accounting and corporate social reporting.
- CO 3: They will get knowledge about recent trends in published accounts of companies.
- CO 4: They will be able to understand various accounting standards used in India.
- CO 5: Students will also get knowledge about BASEL norms, value added reporting and target costing.

Paper: Financial Market Operations BCG 512

- CO 1: Students will learn about all markets in which securities are traded.
- CO 2: Students will learn about new innovative securities e.g. derivatives and their types such as futures, options, swaps & forwards.
- CO 3: All stock exchanges information, mechanism and its application is explained in detail.

- CO 4: Institutional framework and their knowledge is also imparted to students. e.g. SEBI, IFCI, IDBI, SIDBI, EXIM, NABARD etc.
- CO 5: The students will be given information regarding Depositories Act, 1996 and other related laws.
- CO 6: Students learn to deal with corporate sector, stock exchanges & its intermediaries.

Paper: Banking Service Management BCG 521

- CO 1: Students will be able to understand the concept of banking, its structure, key players and functions of banks.
- CO 2: The students will understand the lending process of banks, various lending products and types of lending.
- CO 3: Developing knowledge of financial products and designing tailor made products to meet a client's requirements and communicating the same to clients.

Paper: Insurance Service Management BCG 522

- CO 1: Students will be able to learn about the documentation procedure involved in applying for insurance.
- CO 2: They will be able to understand the role and code of conduct for insurance agents and surveyors.
- CO 3: This subject will give them practical training to learn about the computation of premiums and bonuses.
- CO 4: They will get guidance regarding the procedure of claim settlement.
- CO 5: They will have a deep insight into the impact of taxation, competition and regulation on the pricing of insurance products.

Paper: Computer Based Accounting BCG 531

- CO 1: Students will learn about the role of computers in accounting and business.
- CO 2: They will get information about various types of accounting softwares used by business entities.
- CO 3: They will learn the steps to install tally in their computers and how to use this accounting software.
- CO 4: Students will be practically trained about the use of tally in maintenance of accounts of the firms.
- CO 5: They will learn how to retrieve the financial statements of a firm in tally and how to analyse the same

Paper: E-Commerce BCG 532

- CO 1: The students will have a comprehensive understanding of the E-Commerce, current and emerging business models, and the technology and infrastructure underpinnings of the business.
- CO 2: They will understand that how innovative use of the E-Commerce can help developing competitive advantage.
- CO 3: They will be able to understand that how internet can help business grow.
- CO 4: Students will have an understanding of technical fundamentals required for E-Commerce
- CO 5: They will understand the e-Commerce marketing concepts and communications
- CO 6: An understanding on the importance of security, privacy, and ethical issues as they relate to E-Commerce.

Semester-VI

Paper: Operations Research BCG 603

- CO 1: The students will get knowledge of basics of Operations Research, its meaning, characteristics, scope and limitations.

- CO 2: They will be able to formulate and solve Linear Programming problems using appropriate methods.
- CO 3: They will have understanding to solve problem of transporting the products from origin to destination with least transportation cost.
- CO 4: They will become acquainted with method to solve assignment problems, travelling salesmen problems.
- CO 5: They will learn to solve Queuing model I-single channel poisson arrivals with exponential service times.
- CO 6: They will have in-depth knowledge about concept of game theory, its application and various methods to solve it.

Paper: Corporate Governance BCH 604

- CO 1: Students will be able to develop the skills to build good leaders while following business ethics.
- CO 2: They will be made aware about whistle blowing -which can help in protection while they enter corporate world.
- CO 3: They will get an overview of the ways adopted by corporations to curb insider trading
- CO 4: Analysis of various scandals will enable the students to understand their causes.
- CO 5: The students will study the recommendations of various committees which depict the evolution of corporate governance.
- CO 6: They will understand the concept of credit rating, functions of rating agencies, procedural formalities and advantages for corporations.

Paper: Workshop on Basics of Stock Exchange BCG 605

- CO 1: Students will be able to understand the basics of investment and difference between investment, speculation and gambling.
- CO 2: Students will have an understanding of various investment alternatives such as bank deposits, post office saving schemes, equity shares, preference shares, debentures.
- CO 3: They will understand the exchanges in India such as NSE, BSE, MCX.
- CO 4: They will get to know the depository system in India, its importance, dematerialization and rematerialization and the procedural formalities involved in opening demat account.
- CO 5: The different types of orders and margins will be explained to the students. Students will have thorough understanding of the trading at stock exchange.
- CO 6: The paper will enable the students to have an understanding of the fundamental and technical analysis of the companies.

Paper: Portfolio Management BCG-611

- CO 1: The students will learn to develop relationship between risks and return measures for portfolio of assets.
- CO 2: They will get thorough knowledge regarding efficient portfolios
- CO 3: They will understand how savings and investment are formulated and disbursed among various assets.
- CO 4: Students will understand various models like CAPM, Markowitz Model, and Sharpe's Model which are used to determine efficient portfolios.
- CO 5: They will study different investment strategy which helps in decision making.

Paper: Financial Services BCG 612

- CO 1: The paper will enable the students to gain an insight into the functioning, role and structure of financial institutions in the Indian Economy.
- CO 2: They will acquire adequate information about the roles of intermediaries and its regulating bodies.
- CO 3: Students will understand the operations, role, functioning and regulatory guidelines regarding the Merchant Banking.

- CO 4: They will understand the basic concepts of mutual funds, the types and working of the mutual funds industry.
- CO 5: They will get in-depth knowledge of the mechanism underlying financial services like leasing and venture capital.
- CO 6: The students will be acquainted with factoring services available in India and Securitisation Act.
- CO 7: They will become aware about actual scenario of various financial services including the recent developments in Plastic money, impediments to growth of these services and future scope of these services.

Paper: Foreign Exchange Management BCG 621

- CO 1: Students will be able to identify foreign exchange risk management and the techniques available to business operators for various risk exposures.
- CO 2: They will learn the various methods of currency forecasting.
- CO 3: The paper will help the students to examine the organization of the forex market, the spot market, and the forward market.
- CO 4: Learn how the information collected from the market can be used by business operators in controlling and managing foreign exchange.
- CO 5: Identify operational difficulties in financing and settling foreign currency.

Paper: Risk Management and Insurance BCG 622

- CO 1: Students will be able to learn about the concept of risk and design a risk management program for a business organisation.
- CO 2: It will help them to know about insurance contracts and its provisions, and the basic features of property-liability insurance, life and health insurance.
- CO 3: Students will be able to compare and contrast the role of insurance intermediaries.
- CO 4: They will obtain knowledge about the different retirement and annuities plan for employees.
- CO 5: They will understand the regulatory provisions of insurance sector and also the need of privatisation of insurance business.

Paper: E-Marketing BCG 632

- CO 1: Students will be able to analyse unique e-marketing issues and challenges.
- CO 2: They will be able to understand the use of various strategies such as search engine marketing, pay per click marketing, online advertising techniques etc.
- CO 3: They will be able to frame an integrated and comprehensive e-marketing plan.
- CO 4: They will understand the need of managing customer satisfaction in the digital age.
- CO 5: The paper will help them evaluate various pricing strategies and implementation of a successful e-marketing mix.

Name of Programme: B.Com (Honours)

Course Outcomes

Group I Banking

Paper I: Banking and Financial System

- CO 1: Students will be able to understand the various types of e banking and the difference between traditional banking and e banking.
- CO 2: Students will have an understanding electronic fund transfer system such as NEFT, RTGS and SWIFT.
- CO 3: The impact of information technology on banks will be explained to the students.
- CO 4: They will get to know the risk and security aspects of e banking, different types of threats involved in e banking.

CO 5: Students will have thorough understanding of the regulatory framework of RBI group in internet banking, information system security.

CO 6: The course will enable the students to have understanding of the concept of disaster management in e banking and information system audit

Paper II: Electronic Banking and Risk Management

CO 1: This subject will help the students to have knowledge about various e-banking products and services.

CO 2: Students will get familiarized with the different electronic fund transfer systems and technologies.

CO 3: They will be able to study about the various security issues and learn about the software and technologies to combat the e-banking frauds.

CO 4: They will get equipped with innovations and global developments in the field of banking.

CO 5: They will be able to analyse the risk management framework and learn how to measure and manage various risks with different statistical techniques

Paper III: Accounting for Bankers

CO 1: The subject will make students able to understand the relevance of accounting in banks.

CO 2: Students will be provided information to interpret the provisions of Banking Regulation Act,1949 regarding final accounts of banking companies.

CO 3: The students will be able to analyse the profitability and financial position of the bank.

CO 4: Students will learn different applications of capital budgeting techniques for long period investment.

CO 5: They will get knowledge regarding accounting for NPA/provisioning/suit filed accounts.

Paper IV: Bank Marketing

CO 1: Students will understand the concept of marketing and elements of marketing mix in the context of banking.

CO 2: They will understand the marketing planning and various micro macro factors influencing the market.

CO 3: Students will get the detailed knowledge about the art of customer service as applied to banking.

CO 4: Students will grasp the concept of consumer behaviour in banking as well as marketing research conducted by banks.

CO 5: It develops the understanding about the bank's product and pricing strategies.

CO 6: Students will be made aware about various promotion strategies adopted by banks.

Group IV

Paper I: Management of International Business Operation

CO 1: Students will understand the nature, scope, structure and significance of International Business.

CO 2: They will understand the concept of global business environment i.e. social, cultural, economic, political and ecological factors.

CO 3: Students will get the detailed knowledge about foreign market entry modes.

CO 4: Students will learn the concept of mergers and acquisitions.

CO 5: It develops the understanding about the concept of social responsibility and ethics.

CO 6: Students will be made aware about various Provisions of Foreign Corrupt Practices Act

Paper II:India's Foreign Trade

CO 1: Students will learn about instruments of foreign trade and exchange control in India.

CO 2: They will get knowledge about regulatory framework for export/import operations.

CO 3: They will learn the various methods of cross boarder banking arrangements, forms of international banking, NRI/NRO accounts and cross border risk.

CO 4: Students will get the knowledge about nature of transactions in foreign exchange market and types of players.

CO 5: They will study the significance and factors affecting foreign investments as well as growth of FDI.

Paper III: International Financial Management

CO 1: Students will learn about foreign exchange systems.

CO 2: They will get knowledge about calculation of foreign exchange rates.

CO 3: They will learn the various methods of measuring and managing country risk and political risk factors.

CO 4: Students will get the knowledge about management and measurement of transaction exposures as well as operating exposures.

CO 5: They will study various risk hedging techniques like futures, options, forwards and swaps

Paper IV: International Marketing

CO 1: Students will be able to understand the contemporary issues in international marketing and acquire skills to suggest solutions for the same.

CO 2: They will be able to define and illustrate the various strategies of entering into an international market

CO 3: They will be able to study the modifications required to be made to the marketing mix that a firm requires to make when entering the global market.

CO 4: They will acquire knowledge about the role and working of various international bodies and organisations like GATT, WTO, UNCTAD, IMF etc.

CO 5: They will be able to study the foreign trade regulations and learn about the problems faced by exporters in numerous aspects.

Name of Programme: BBA

Course Outcomes

Semester-I

Paper: Basic Accounting BBA 103

CO 1: The paper enables students to understand the concept of book keeping and accounting.

CO 2: Student will learn the different concepts and conventions of accounting.

CO 3: The paper will explain the main elements of financial accounting information –assets, liabilities, revenue, expenses, financial statements and their purposes.

CO 4: It will help students in understanding the rules and principles of accounting for recording various business transactions.

CO 5: They will learn to prepare final accounts of sole trading business and company form of organisations.

CO 6: Students will be able to get knowledge about recent trends in reporting of financial statements.

Paper: Business Organisation and Systems BBA 104

CO 1: Students will understand the main working aspects of organisations, not only from an economic point of view but also considering organisations as part of society.

CO 2: They will be able to analyse the economic environment of organisations by means of the development of conceptual areas such as industry, human resources and production.

CO 3: Knowledge of a comprehensive glossary of economic terms widely used in the analysis and discussion of behaviour organisation.

CO 4: Interpreting the meaning of the information emerging from the organisation, particularly with regard to the management of human resources and production

Paper: Business Communication BBA 107

- CO 1: The students will have thorough knowledge of business communication, its importance, purpose, process and barriers to effective communication, basic models of communication and 7Cs of effective communication.
- CO 2: They will be able to demonstrate a good understanding of effective organizational communication and its forms like formal and informal communication, internal and external communication.
- CO 3: They will become familiar with business etiquettes.
- CO 4: They will have knowledge and skills to prepare memos, circulars, notices and office orders used for internal correspondence.
- CO 5: They will have understanding of correspondence with banks, customers' correspondence and secretarial correspondence.
- CO 6: They will be able to prepare resumes, job application and draft interview letters, call letters and final appointment letters.

Semester-II

Paper: Business Laws BBA 203

- CO 1: Effects of legal contracts binding through Indian Contract Act.
- CO 2: Awareness about terms and conditions for Sale of goods.
- CO 3: Being aware consumers following provisions of Consumer Protection Act.
- CO 4: Use of negotiable instruments for entering into agreements.
- CO 5: Knowledge about cheques and their various types used in daily routine.
- CO 6: Clarity on various parties and conditions in the hire purchase agreements

Paper: Principles of Management BBA 204

- CO 1: Describe the meaning, definition, nature, scope and importance of management.
- CO 2: Discuss Principles of management and Scientific Management.
- CO 3: Explain management technique: Management by Objective.
- CO 4: Discuss in detail the functions of Management i.e. planning, organising, authority, staffing, directing, controlling.
- CO 5: Understand the concept of departmentation and its types in detail.

Paper: Computer Based Accounting System BBA 206

- CO 1: Students will learn about the maintenance of groups and accounts as well as about codification and hierarchy of accounts.
- CO 2: They will get information about various types of accounting software used by business entities.
- CO 3: They will learn about database designing through ER model and structured query language.
- CO 4: Students will be practically trained about the use of tally in maintenance of accounts of the firms.
- CO 5: They will learn how to view and analyse the financial statements of a firm in tally.

Paper: Fundamentals of Banking BBA 207

- CO 1: The understanding of basics of banking is essential for every student especially for commerce stream and this subject cater to this need.
- CO 2: The study of fundamentals of banking enriches students' knowledge in comprehending the structure of banking, its functions and role in economic development of a nation.
- CO 3: Credit creation, the role of central bank, clearing house function, negotiable instrument, types of cheques and passbook impart necessary and useful information possessing practical implications. Resultant, students dealing with banks in their daily life has become uncomplicated.
- CO 4: Students' knowledge in banking can also assist them to get job in banking sector in future.

Semester-III

Paper: Fundamentals of Human Resource Management BBA 304

- CO 1: Describe the Nature, Scope, Objectives and Functions of Human Resource Management.
- CO 2: Explain the concept of Human Resource Planning recruitment and Selection of Human Resource, Training and Development of Human Resource.
- CO 3: Discuss in detail Employee Retention Strategies.
- CO 4: Measure the Methods and Techniques of Performance Appraisal.
- CO 5: Analyse the Methods of Job Evaluation.

Paper: Fundamentals of Marketing Management BBA 305

- CO 1: Marketing management, as a part of curriculum of B.Com. Sem. 3, benefits the students by enhancing their knowledge and skill in perceiving challenges and threats of external marketing environment and developing appropriate marketing strategies to adapt with it.
- CO 2: Further, through practical examples, learn to create suitable product, place, price and promotion mix for segmenting, targeting and positioning the market segment with the aim to satisfy consumers.
- CO 3: Besides, this subject ameliorates students' ability to understand intricacies of marketing and thus, help them to adopt marketing as a profession in future.

Paper: Indian Financial System BBA 306

- CO 1: Students seek information regarding Securities Contract Act, SEBI, RBI and capital markets.
- CO 2: Different conceptual framework of IRDA Act& its implications is grabbed by the students.
- CO 3: The information regarding FDI & FII'S is providing an insight towards the foreign collaborations.
- CO 4: Indian financial system & its overview is very important to study the economic impact.
- CO 5: They gain knowledge about market players.

Paper: Management Accounting BBA 307

- CO 1: Explain how management accounting plays important role in business decision making.
- CO 2: How management accounting contributes to financial reporting and how it is different from financial accounting.
- CO 3: Read, interpret and analyse financial statements with the various tools of management accounting to assess the financial performance and position of a company.
- CO 4: Understand, define and implement management control systems and responsibility accounting.
- CO 5: Develop the financial reports for effective communication in decision making process.

Semester-IV

Paper: Financial Management BBA 403

- CO 1: The subject will familiarize the students with the functional areas and principles of financial management and they will acquire the knowledge to manage the finance and financial requirements in business.
- CO 2: Student will get knowledge about theories and factors affecting the capital structure of the business and financial leverage to form long-term financial policies for business.
- CO 3: They will understand the common factors influencing dividend policy and the various theories of dividend policy.
- CO 4: They will be capable to analyse the capital investment decisions and to identify relevant cash flows for capital budgeting projects and apply various methods to analyse projects.
- CO 5: They will learn to apply techniques for estimating the cost of each component of the cost of capital and understand how to assemble this information into a cost of capital.
- CO 6: They will know the concept of leverage and the benefits and costs associated with debt financing.

CO 7: The students will recognize the various long-term and short-term sources of funds for a business firm.

Paper: Production and Operations Management BBA 404

CO 1: Familiarize with the concept of production and operations management.

CO 2: To understand the new product design and development.

CO 3: The students will be able to get knowledge about plant location and layout as well as production scheduling techniques.

CO 4: Understand the concept, importance, factors affecting the productivity and methods to improve the same.

CO 5: To know about quality and total quality management.

CO 6: To acquire in-depth knowledge about inventory management and decisions.

Paper: Business Environment BBA 405

CO 1: Familiarize with the nature of business environment and its components.

CO 2: To understand the different environment in the business climate.

CO 3: The students will be able to demonstrate and develop conceptual framework of business environment and generate interest in international business.

CO 4: Understand the definition of ethics and the importance and role of ethical behaviour in business world today.

CO 5: To know the different environment like, political, technological and economic environment in the business

CO 6: To acquire in-depth knowledge about legal environment etc.

Paper: Operations Research BBA 406

CO 1: Knowing the basic concepts, models and statements of operation research theory.

CO 2: To formulate and solve problems as networks and graphs to improve decision making.

CO 3: To construct linear programming models and discuss the solution techniques.

CO 4: To build and solve transportation models and assignment models.

CO 5: To use CPM and PERT techniques to plan, schedule and control project activities.

CO 6: To propose the best strategy using decision making methods under uncertainty and game theory

Paper: Fundamentals of Insurance BBA 407

CO 1: Students will be given knowledge to understand the conceptual aspects and principles of insurance.

CO 2: They will be able to understand the relevance of insurance in the present scenario.

CO 3: Students will be familiar with provisions of insurance act 1938, LIC act 1956, GIC act 1972 and IRDA 1999 in detail.

CO 4: They can evaluate different types of insurances to opt in their real life.

CO 5: Learners will come to know the role and code of conduct for insurance agents and insurance specialists.

Semester-V

Paper: Company Law BBA 503

CO 1: Understand the legal regulation of companies through an analysis of the key characteristics of the corporation.

CO 2: Understand the structure and composition of the company boards and their general duties as the directors.

CO 3: To get knowledge about key documents of companies i.e. MOA, AOA and prospectus and their implications over various decisions.

CO 4: Know the basic aims and the nature of insolvency regimes and the process of liquidation and its administration. Evaluate and interpret complex case materials and apply them to practical corporate problems

Paper: Entrepreneurship and Small Business BBA 504

CO 1: Students will be able to understand both the theoretical and practical role of entrepreneurship in the present business scenario.

CO 2: The subject will enhance entrepreneurial skills of the students in their real life.

CO 3: Students will be well educated about the role of the government in organising entrepreneurial development programmes.

CO 4: It will be easy for them to learn the art of strategic planning in respect of finance, production, marketing, and risk management.

CO 5: They can obtain information regarding the contribution of commercial banks in promoting and servicing small business.

Paper: Cost Accounting BBA 505

CO 1: It will make the students aware about various elements of cost.

CO 2: Students will learn various methods of costing.

CO 3: It will develop the understanding relating to overhead cost and its classification allocation.

CO 4: It will also introduce students to activity-based accounting.

CO 5: Students will also gain knowledge about cost control methods like marginal costing, budgetary control, standard costing and break-even analysis.

Paper: Consumer Behaviour BBA 511

CO 1: Identify the major influences in consumer behaviour.

CO 2: Distinguish between different consumer behaviour influences and their relationships.

CO 3: Establish the relevance of consumer behaviour theories and concepts to marketing decisions

CO 4: Implement appropriate combinations of theories and concepts.

CO 5: Recognise social and ethical implications of marketing actions on consumer behaviour.

CO 6: Use most appropriate techniques to apply market solutions.

Paper: Advertising and Sales Management BBA 512

CO 1: Demonstrate a clear understanding of major marketing concepts in writing and orally using proper business communications techniques.

CO 2: Develop an effective sales compensation plan.

CO 3: Evaluate the performance of a sales person

CO 4: Organize sales territories to maximize selling effectiveness

CO 5: Evaluate sales and sales management strategies in relation to current legal and ethical standards of practice

Semester-VI

Paper: Income Tax BBA 603

CO 1: The subject will introduce students to the concept of Indian Income Tax system and scope of the act

CO 2: It will also develop the practical skill computation to taxable income under various heads like; - salaries, house property, business and profession.

CO 3: Students will learn various deductions that are allowed from taxable income.

CO 4: It will also conceptually clarify the residential status and tax liability of an individual, firm, company or a cooperative society.

CO 5: Students will be able to segregate and estimate agricultural income with the help of examples.

Paper: Fundamental of Capital Markets BBA 604

CO 1: Explain basic concepts about capital market.

CO 2: Classify the Functions of capital market.

- CO 3: Describe the Components of capital market.
- CO 4: Analyse various Instruments in capital market.
- CO 5: Analyse the Stock Exchanges in India.
- CO 6: Explain various requirements of Listing.
- CO 7: Deal with Security Market Indices.

Paper: Service Marketing BBA 611

- CO 1: Examine the nature of services, and distinguish between products and service.
- CO 2: Identify the major elements needed to improve the marketing of service
- CO 3: Examine service delivery gaps and their removal.
- CO 4: Develop an understanding of the roles of relationship marketing and customer service in adding value to the customer's perception of a service.
- CO 5: Appraise the nature and development of a services marketing strategy
- CO 6: Recognise how services marketing principles can be used as a conceptual framework to help managers identify and solve marketing problems.
- CO 7: Understanding service blue printing and process of service delivery.

Paper: E- Marketing BBA 612

- CO 1: Students will recognize the importance of e-marketing in current business environment and frame its objectives.
- CO 2: Practically, they will be able to evaluate the different digital marketing tools such as SEO, SEM, PPC, Social media and Blogs
- CO 3: They will acquire knowledge about segmentation, targeting and positioning strategies and will be able to frame an e-marketing mix plan.
- CO 4: It will help them to compare and contrast different payment gateways.
- CO 5: They will understand the scope of smart phone applications.

Name of Programme: B.Voc. (Banking and Financial Services)

Course Outcomes

Semester-I

Paper: Fundamentals of Management BVC-103

- CO 1: Describe the Meaning, Definition, Nature, Scope and Importance of Management.
- CO 2: Discuss Principles of Management and Scientific Management.
- CO 3: Explain Management Technique: Management by Objective.
- CO 4: Discuss in detail the functions of management i.e. planning, organising, authority, staffing, directing, controlling.
- CO 5: Understand the concept of departmentation and its types in detail.

Paper: Principles and Practice of Banking BVC 104

- CO 1: To describe the context of banking: the financial system.
- CO 2: Explain the principles of banking to students.
- CO 3: Elucidate the broad functions of banks to students.
- CO 4: Students will analyse and explain the concept of money laundry.
- CO 5: It also Describe the components of the balance sheets of banks to students.
- CO 6: Elucidate the liability and asset portfolio management " problem" of banks.

Paper: Principles and Practices of Insurance BVC 105

- CO 1: Students will be able to understand the structure and components of Indian Financial System.
- CO 2: Students will have an understanding of the role of RBI being apex body and as a regulator of all the banks.
- CO 3: The structure of development banks and NBFCs will be explained to the students.
- CO 4: They will get to know about the various instruments of money market and capital market.

- CO 5: Students will have thorough understanding of the role of SEBI in investor protection.
- CO 6: The working and eligibility criterion of various functionaries on stock exchange such as broker, sub broker, market maker, jobbers, portfolio consultants etc. will be explained to the students.
- CO 7: The course will enable the students to have understanding of the various financial instruments such as shares, debentures, zero coupon bonds, derivatives etc.

Paper: Indian Financial System BVC 106

- CO 1: Students will be able to understand the structure and components of Indian Financial System.
- CO 2: Students will have an understanding of the role of RBI being apex body and as a regulator of all the banks.
- CO 3: The structure of development banks and NBFCs will be explained to the students.
- CO 4: They will get to know about the various instruments of money market and capital market.
- CO 5: Students will have thorough understanding of the role of SEBI in investor protection.
- CO 6: The working and eligibility criterion of various functionaries on stock exchange such as broker, sub broker, market maker, jobbers, portfolio consultants etc. will be explained to the students.
- CO 7: The course will enable the students to have understanding of the various financial instruments such as shares, debentures, zero coupon bonds, derivatives etc.

Paper: Banking Operation Simulation BVC 107

- CO 1: Students will be able to understand the techniques of credit control and the methodology of credit creation.
- CO 2: The different types of bank accounts and the procedural formalities involved in opening the accounts will be explained to the students.
- CO 3: Students will have an understanding of different bank forms and documents like pay in slip, withdrawal forms and cheques.
- CO 4: They will get to know the principles of lending and loan policy, basics of loan appraisal and the types of advances.
- CO 5: The different types of negotiable instruments like cheques, bills of exchange and promissory notes will be explained to the students.
- CO 6: Students will have thorough understanding of the tools and techniques of risk management.
- CO 7: The course will enable the students to have understanding of the innovations in banking such as internet banking, phone banking, universal and narrow banking, bancassurance.

Semester-II

Paper: Financial Services BVC- 204

- CO 1: Students will be able to understand the various kinds of financial services and their role in the Indian financial system.
- CO 2: Students will have an understanding of the structure and regulation of merchant banking in India.
- CO 3: The types of leasing, its pros and cons, hire purchase, legal aspects of hire purchase and its tax implications will be explained to the students.
- CO 4: They will get to know the principles of lending and loan policy, basics of loan appraisal and the types of advances.
- CO 5: Students will be able to understand the types of mutual funds and their constitutions and management.
- CO 6: They will have an understanding of the various modes of consumer finance, role of consumer finance in financial system, procedural formalities involved in getting consumer finance.
- CO 7: They will get to know the housing finance system and the refinance schemes of HFCs.
- CO 8: The depository system and the process of dematerialization and rematerialization will be explained to the students.

Paper: Mutual Funds BVC- 206

- CO 1: Students can understand the role of mutual fund in Indian financial market.
- CO 2: They will obtain practical knowledge to invest in mutual fund.
- CO 3: The subject will make them well versed regarding regulatory and legal environment of mutual fund.
- CO 4: They will get to know the principles of lending and loan policy, basics of loan appraisal and the types of advances.
- CO 5: Students can categorise different mutual fund schemes.
- CO 6: Learners can use different measures of risk and return to invest in mutual fund.

Semester-III**Paper: Business Laws BVC- 302**

- CO 1: Students will be able to understand provisions of Indian Contract Act, 1972 in detail regarding essentials of a valid contract, how to discharge a contract, remedies for breach of contract.
- CO 2: Practically it would be easy for them to learn about concepts of Pledge, Hire Purchase, Indemnity and Guarantee and sale by Auction.
- CO 3: The subject will make the students acquainted with their rights as consumer and various forums for filing of complaints in case they are not satisfied with various products & services being supplied to them.
- CO 4: They would have deep understanding of Negotiable Instrument Act, 1881 covering the concepts of Cheques, Bill of Exchange & Promissory Notes.

Paper: Basic Accounting for Financial Manager + Tally BVC- 303

- CO 1: Understand fundamental accounting concepts and principles.
- CO 2: Apply the essential numerical skills required for book keeping and accounting.
- CO 3: Record the transactions in the appropriate ledger accounts using the double entry bookkeeping system.
- CO 4: Balance off ledger accounts at the end of an accounting period.
- CO 5: Prepare a trial balance, balance sheet and a profit and loss account.
- CO 6: Evaluate the financial performance of an organization using various financial reports.

Paper: Operational Risk Management BVC- 304

- CO 1: Understand the governance structures, systems, procedures and cultural aspects necessary for an organization to successfully manage operational risk.
- CO 2: Understand the methods to manage an organization's risk, risk optimization, management of market risk, credit risk, operational and other risk.
- CO 3: Identify the approaches available to banks under Basel III for the calculation of regulatory capital for operational risk.
- CO 4: Demonstrate knowledge of the range of financial and financial related risks facing organizations.

Paper: Financial Statement Analysis BVC-305

- CO 1: The paper will acquaint the students with types, nature and qualitative characteristics of financial statements as well make them understand the balance sheet and profit and loss account as per revised schedule.
- CO 2: Students will have an understanding of methods of financial statement analysis, common size statements, comparative statements, trend analysis.
- CO 3: The different types of ratios such as liquidity ratios, profitability ratios, activity ratios will be explained to the students.
- CO 4: The Students will be able to understand the types of working capital and factors affecting working capital.

- CO 5: They will have an understanding of analysis of fund flow statement, cash flow statement and difference between cash flow statement and fund flow statement.
- CO 6: The concept of optimum credit policy, credit policy variables, credit standards, collection policy etc. will be explained to the students.
- CO 8: The students will be able to understand the objectives of inventory management and selective inventory control techniques such as ABC, VED, JIT.
- CO 9: The concept of optimum credit policy, credit policy variables, credit standards, collection policy etc. will be explained to the students.

Paper: Bank Credit Management BVC 306

- CO 1: Safeguarding customer risk, settling outstanding balances and improving cash flow are three key objectives of credit management that are imperative to founding success.
- CO 2: Emphasis the need and goals of establishing a sound credit policy.
- CO 3: Show how an optimum credit policy can be established.
- CO 4: Explain the credit policy variable.
- CO 5: Indicate the credit procedure for control of individual.
- CO 6: Suggests methods of monitoring receivables.

Semester-IV

Paper: Business Ethics and Corporate Social Responsibility BVC-401

- CO 1: Define, explain and illustrate the theoretical foundations of business ethics.
- CO 2: Recognize and resolve ethical issues in business through established methodologies.
- CO 3: Explain the role of managers in setting standards for ethical behaviour.
- CO 4: Explain the credit policy variable.
- CO 5: Consider any moral obligations of businesses to environment and to people in other countries.
- CO 6: Investigate whether ethics set any boundaries on marketing, sales and advertising.
- CO 7: Present the concept of Corporate social responsibility and its relevance to ethical business activity.

Paper: Business Environment BVC 402

- CO 1: Define and understand the various nuances of the business environment.
- CO 2: Understand the role of socio-cultural factors and political – legal system on the conduct of business in the country.
- CO 3: Realize the importance of micro and macro environment on business decisions.
- CO 4: Understand how an entity operates in different business environment.
- CO 5: Demonstrate and develop conceptual framework of business environment.

Paper: Entrepreneurship Development BVC 403

- CO 1: Students will be able to understand both the theoretical and practical role of entrepreneurship in the present business scenario.
- CO 2: The subject will enhance entrepreneurial skills of the students in their real life.
- CO 3: Students will be well educated about the role of the government in organising entrepreneurial development programmes.
- CO 4: It will be easy for them to learn the art of strategic planning in respect of finance, production, marketing, and risk management.
- CO 5: They can obtain information regarding the contribution of commercial banks in promoting and servicing small business.

Paper: Investment Management BVC 404

- CO 1: Students will have the knowledge and skills to select and employ base level tools for financial analysis and Students will be able to use time value of money methodology.
- CO 2: Students will have the knowledge and skills to analyze companies for investment purposes.

- CO 3: Students will have the knowledge and skills to develop portfolio strategies for individual and institutional investors.
- CO 4: Students will have the knowledge and to operate ethically as investment management professionals.
- CO 5: Students will be able to develop an appropriate portfolio for a given investor and market conditions.
- CO 6: Students will be able to develop investment policy statements for institutional and individual investors.

Paper: Financial Market Operations BVC-406

- CO 1: Describe the different components of a financial system and their role.
- CO 2: Explain the recent developments in the Indian financial system
- CO 3: Describe the instruments, participants and operation of the money market.
- CO 4: Describe the methods of issuing shares and role of intermediaries in the primary market.
- CO 5: Describe the trading mechanism in the stock market.
- CO 6: List the various speculators and describe the speculative activities.

Semester-V

Paper: Financial Management BVC 501

- CO 1: The students will be able to understand both the theoretical & practical role of financial management in business corporations.
- CO 2: They would be able to understand importance of risk within context of financial decision making.
- CO 3: The students will learn to analyse the different sources of finance and their cost.
- CO 4: The subject will make the students acquainted with deciding on optimal capital structure.

Paper: Operations Management BVC 502

- CO 1: Helps the students in understanding the concept of Operations Management and Productivity.
- CO 2: Helps the students in solving and analyzing problems using different techniques.
- CO 3: Students will be able to develop and evaluate alternate managerial choices and identify optimal solutions.
- CO 4: Students will be able to develop suitable material handling principles and practices in the operations.

Paper: Organisational Behaviour BVC- 503

- CO 1: Students can learn about behavioural aspects of human beings by studying in detail concepts of Personality, Values, Attitude, and Emotions & Moods.
- CO 2: They will be able to understand how to work in groups, factors affecting group decision making.
- CO 3: The subject will make students well versed with consequences of stress and coping up strategies.
- CO 4: The students can very easily interpret conceptualization of whistle blowing, organisational citizen behaviour.

Paper: Security Analysis 504

- CO 1: Understand the various alternatives available for investment.
- CO 2: Learn to measure risk and return. Find the relationship between risk and return.
- CO 3: Value the equities and bonds.
- CO 4: Gain knowledge of the various strategies followed by investment practitioners. Identify, formulate and solve investment problems.
- CO 5: Identify, assess and evaluate common securities.
- CO 6: Implement and review security valuation.

Paper: Treasury Management BVC-505

- CO 1: They will also learn how to do liquidity management in business.
- CO 2: They will be able to understand the treasury culture prevailing in the business as well as the treasury policies followed by the business.
- CO 3: Students will learn about the credit rating methodology used to provide credit ratings to the institutions.
- CO 4: They will learn about the method of cash flow forecasting.
- CO 5: They will understand how the clearing and settlement of domestic as well as international transactions is done.

Paper: E-Banking BVC-506

- CO 1: Students will be able to understand the concept of money, money supply and money creation.
- CO 2: Students will have an understanding of the financial system and its components.
- CO 3: They will understand the role and functions of banks, structure of banking and the procedural formalities involved in opening various types of accounts such as firms, companies, individuals, HUF, trusts, societies etc.
- CO 4: They will get to know the risk and security aspects of e banking, different types of threats involved in e banking.
- CO 5: Students will have thorough understanding of the regulatory framework of RBI group in internet banking, information system security.
- CO 6: The course will enable the students to have understanding of the concept of disaster management in e banking and information system audit.

Semester-VI

Paper: Human Resource Management BVC-601

- CO 1: Students can learn about management of human resources & challenges being faced by human resource department in an organisation.
- CO 2: It will be easy for them to understand role of HRM in 21st century.
- CO 3: Subject will make them well versed with the various techniques of training, recruitment procedure being followed, and motivational aspect of human resources.
- CO 4: Practically it would be easy for them to have an idea about work patterns, diversity management & unemployment issues.

Paper: Marketing of Financial Services BVC-602

- CO 1: Define, explain and illustrate some of the frameworks and approaches that are helpful in marketing financial services
- CO 2: Discuss to position value propositions, products and brands in customers' minds.
- CO 3: To develop new products (goods and services) that add value to consumers and firms.
- CO 4: To price financial products.

Paper: Financial Risk Management BVC-603

- CO 1: Practical aspects about management of financial risk will enable students to take wise decisions.
- CO 2: Students will learn about various financial risk associated with investment of fund & tools for management of risk.
- CO 3: Students are given practical knowledge regarding derivatives.
- CO 4: The subject will make them well versed with the understanding of trading process and valuation of futures, options, swaps & forward contracts.

Paper: International Financial Management BVC-604

- CO 1: Students will be able to understand the foreign exchange system, international monetary system and the European monetary system.

- CO 2: Students will have an understanding of spot and forward market, determination of exchange rate, factors affecting currency value and the concept of arbitrage and law of one price.
- CO 3: They will understand the concept of interest rate parity theory, purchasing power parity, Fisher effect and international Fisher effect.
- CO 4: They will get to understand the concept of balance of payment and the international flow of goods, services and capital.
- CO 5: The various types of exposures such as transaction exposure, economic exposure and translation exposure and their management will be explained to the students.
- CO 6: The students will understand the foreign exchange instruments, recent developments in derivative market in India and the concept of currency futures.

Paper: International Banking BVC- 605

- CO 1: Students will be able to analyse various international sources of finance.
- CO 2: Students will gain immense knowledge regarding provisions of foreign exchange act.
- CO 3: The learners will be imparted practical knowledge to deal in international financial market.
- CO 4: Students will come to know how international banking operations are being done.
- CO 5: They can understand the role of international financial institutions for promoting international trade.
- CO 6: The students will understand the foreign exchange instruments, recent developments in derivative market in India and the concept of currency futures.

Paper: Portfolio Management BVC- 606

- CO 1: Understand various alternatives available for investment.
- CO 2: Find the relationship between risk and return.
- CO 3: Develop understanding of Markowitz Diversification Model, Capital Market Theory and Arbitrage Pricing Theory.
- CO 4: To Value the Equities and Bonds.
- CO 5: Gain knowledge of various Equity Portfolio Management Strategies and Bond Portfolio Management Strategies followed by investment practitioners.
- CO 6: Evaluate the measures of Portfolio Performance.

Name of Programme: M.Com

Course Outcomes

Semester-I

Paper: Management and Organisation Behaviour MC 103

- CO 1: Students can learn about behavioural aspects of human beings by studying in detail concepts of Personality, Values, Attitude, and Emotions & Moods.
- CO 2: They will be able to understand how to work in groups, factors affecting group decision making.
- CO 3: The subject will make students well versed with consequences of stress and coping up strategies.
- CO 4: The students can very easily interpret conceptualization of whistle blowing, organisational citizen behaviour.
- CO 5: The students will learn Management Technique: Management by Objective.

Paper: Business Environment MC104

- CO 1: This paper provides the Information to the students about the internal as well as external environment affecting any business organization.
- CO 2: Students become aware of various govt. rules & regulations and Policies relating to business.
- CO 3: They understand foreign trade Policy of India relating to past and current scenario.

- CO 4: They also come to know about the Balance of payment and Balance of Trade Position of India.
- CO 5: They equip with the latest amendments in the current Budgets.
- CO 6: This paper provides them the data relating to various economic policies & economic planning of India since inception.
- CO 7: They also understand the limitations of various laws and suggestions for the improvement of the policies framed by our government.

Paper: Management Accounting and Control System MC 105

- CO 1: Evaluate the global context for taking managerial actions of planning, organizing and controlling.
- CO 2: Assess global situation, including opportunities and threats that will impact management of an organization.
- CO 3: Integrate principles into management practices.
- CO 4: Understand the concepts related to Business.
- CO 5: Demonstrate the roles, skills and functions of management.
- CO 6: Analyze effective application of subject knowledge to diagnose and solve organizational problems and develop optimal managerial decisions.
- CO 7: Understand the complexities associated with management of human resources in the organizations integrate the learning in handling these complexities. Demonstrate the applicability of the concept of organizational behaviour to understand the behaviour of people in the organization.
- CO 8: Demonstrate the applicability of analyzing the complexities associated with management of individual behaviour in the organization.
- CO 9: Demonstrate the applicability of the concept of organizational behaviour to understand the behaviour of people in the organization.

Semester-II

Paper: Corporate Financial Accounting and Auditing MC 201

- CO 1: This subject will apprehend accounting treatment of Equity shares and preference shares.
- CO 2: It also provides knowledge about detailed procedure of issuing and redemption of debentures.
- CO 3: It also imparts practical skills for the preparation of final accounts of limited liability companies.
- CO 4: Students will learn various theoretical and practical aspects of accounting treatment of amalgamation of companies & internal reconstruction.
- CO 5: It provides practical aspects of preparation of final accounts of banking companies to students.
- CO 6: It provides practical skills for preparation of final accounts of insurance companies to students.

Paper: Financial Management MC 202

- CO 1: This paper helps the learners to know about the various sources from which funds can be raised in a business and the ways to use these funds in an optimum way.
- CO 2: Students are able to learn financial planning so as to become good financial managers.
- CO 3: They can also understand about the framework of various projects which may help them in their future career.
- CO 4: It is possible to do cost-benefit analysis of each project, evaluation of the proposals & to take good decision –making on financial matters.
- CO 5: They can learn to make long term financial planning, calculation of cost of various sources of funds, dividend distribution decision by the companies, investment planning, capital-structure decisions and working capital management techniques.

Paper: Marketing Management MC 204

- CO 1: The students will be able to develop the understanding of concept of human resource management and its relevance in organisation.
- CO 2: They will be able to demonstrate a basic understanding of different tools used in forecasting and planning human resources needs.
- CO 3: They will understand meaning of recruitment and selection, its techniques and problems associated with them.
- CO 4: They will become acquainted with training and development needs, objectives and various methods used to train employees.
- CO 5: They will learn to compare and contrast the different techniques involved in performance appraisal process.
- CO 6: They will get knowledge regarding the concept of job evaluation and its methods, various types of incentives and fringe benefits, grievance handling machinery in an organisation.
- CO 7: They will be aware of reasons, consequences of indiscipline in an organisation and approach to maintain discipline.

Semester-III**Paper: Banking and Insurance Services MC 301**

- CO 1: This Paper is very useful for the learners to know about the functions & roles of Banks, types of Banks & structure of banking system.
- CO 2: Students can get latest information relating to updates of banks, their growth rates, new facilities to customers at their disposal.
- CO 3: They can understand the role of banks in the upliftment of society, women, small scale Industries, rural population & other weaker sections of society.
- CO 4: It helps them to understand the Procedure of loan facilities of the Banks, cost incurred and repayment schedules.
- CO 5: This paper also focuses on insurance industry of India, Students can learn about the different insurance sectors, schemes, benefits of these schemes & cost incurred etc.
- CO 6: They can also know about the various formalities or paper work involved in Insurance along with different Insurance Plans.
- CO 7: They will be aware of reasons, consequences of indiscipline in an organisation and approach to maintain discipline.

Paper: Contemporary Accounting MC 311

- CO 1: Students will be able to understand various contemporary issues in accounting.
- CO 2: They will learn about price level accounting, human resource accounting and corporate social reporting.
- CO 3: They will get knowledge about recent trends in published accounts of companies.
- CO 4: They will be able to understand various accounting standards used in India.
- CO 5: Students will also get knowledge about BASEL norms, value added reporting and target costing.
- CO 6: They will get knowledge regarding the concept of job evaluation and its methods, various types of incentives and fringe benefits, grievance handling machinery in an organisation.
- CO 7: They will be aware of reasons, consequences of indiscipline in an organisation and approach to maintain discipline.

Paper: Consumer Behaviour MC 351

- CO 1: Consumer Behaviour, as part of curriculum of M. Com Sem. 3, imparts knowledge & skill to the students to understand how dynamism in consumer behaviour imposes a great challenge to marketers besides understanding the strategies that are needed to cater to this issue to attain success.

- CO 2: Students become more aware and demanding while purchasing goods and services. Thus, they learn how to behave as rational consumer in a complexed market place.
- CO 3: Student apprehend how motivation, perception, learning, attitude, life style, family, reference group, social class and culture shape consumer behaviour and hence, learn suitable marketing strategies to serve consumers better to delight them.

Paper: Retail Management MC 352

- CO 1: Students will attain the Insight about retail sector.
- CO 2: Implementation of pricing strategies in own business.
- CO 3: Setting up and trading through online websites.
- CO 4: Internal setup to attract customers by large.
- CO 5: Impact of location while setting up new business.
- CO 6: A deep walk to establishing and setting up business and brands.

Semester-IV

Paper: International Accounting MC 401

- CO 1: Students will learn about interaction between accounting and its environment.
- CO 2: They will get the knowledge about international financial reporting.
- CO 3: They will learn how to do international financial analysis.
- CO 4: Students will get the knowledge about financial reporting in US, UK, China, Japan and India
- CO 5: They will study about convergence of accounting standards and accounting for foreign currency transactions and translations.
- CO 6: They will get knowledge about international harmonisation and methods of international transfer pricing.

Paper: E-Commerce MC402

- CO 1: Students will be able to understand the goals of e-commerce, scope of e-commerce and its advantages and disadvantages
- CO 2: Students will have an understanding of various e business models such as B2B, C2C, C2B and website as a market place.
- CO 3: They will understand the online payment mechanism, electronic payment system, payment gateways and the tools for promoting websites.
- CO 4: They will get to understand the security and legal aspects of e-commerce and the threats involved in e-commerce.
- CO 5: The provisions of IT Act, 2000 will be explained to the students.
- CO 6: The students will understand the emerging trends in e business such as e governance, digital commerce, mobile commerce, e marketing, e procurement.

Paper: International Financial Management MC 411

- CO 1: Students will be able to understand the foreign exchange system, international monetary system and the European monetary system.
- CO 2: Students will have an understanding of spot and forward market, determination of exchange rate, factors affecting currency value and the concept of arbitrage and law of one price.
- CO 3: They will understand the concept of interest rate parity theory, purchasing power parity, Fisher effect and international Fisher effect.
- CO 4: They will get to understand the concept of balance of payment and the international flow of goods, services and capital.
- CO 5: The various types of exposures such as transaction exposure, economic exposure and translation exposure and their management will be explained to the students.
- CO 6: The students will understand the foreign exchange instruments, recent developments in derivative market in India and the concept of currency futures.

Paper: Financial Markets and Financial Services MC 412

- CO 1: Students will have knowledge about financial structure of the economy as a whole.
- CO 2: They tend to find out difference between various financial instruments tradable in the markets.
- CO 3: Learn the concepts like Cash Flows, Discounted Rates, & Valuation Models etc.
- CO 4: They gain knowledge about financial intermediaries like Discount houses, Issue Houses, Merchant Banks etc.
- CO 5: They come across to study the constitutions of various companies which are major players in capital markets.

Paper: Corporate Tax Law and Planning MC 413

- CO 1: The students will be able to identify the difference between Tax planning, Tax avoidance and Tax evasion.
- CO 2: They will become acquainted with rules regarding residential status of a company.
- CO 3: The students will be able to compute gross total income of the companies.
- CO 4: The students will be able to describe how the provisions in the corporate tax laws can be used for tax planning.
- CO 5: The students will have knowledge of many incentives given to companies in the form of deductions, exemptions, rebates, reliefs.
- CO 6: The students will be able to analyse various management decisions like own or lease, make or buy, shut down or continue etc. from the point of view of tax planning.
- CO 7: The students will be able to understand tax issues relating to business restructuring like amalgamation, demerger, slump sale.
- CO 8: The students will have knowledge of double taxation and double taxation relief provisions in India.

Name of Programme: Post Graduation Diploma in Business Management

Course Outcomes

Semester-I

Paper: Management and Organisational Behaviour PGDBM 101

- CO 1: Students will be able to understand the development of the field of organizational behaviour and explain the micro and macro approaches.
- CO 2: Students will be able to analyze and compare different models used to explain individual behaviour related to motivation and rewards.
- CO 3: It will help the students to identify the processes used in developing communication and resolving conflicts.
- CO 4: Students will get to know about group dynamics and demonstrate skills required for working in groups (team building).
- CO 5: It will help them to identify the various leadership styles and the role of leaders in a decision-making process.
- CO 6: The students will be able to analyse various management decisions like own or lease, make or buy, shut down or continue etc. from the point of view of tax planning.

Paper: Business Economics and Environment PGDBM 102

- CO 1: Explain basic concepts about Nature and Scope of Economics.
- CO 2: Develop understanding of Law of Demand and Elasticity of Demand.
- CO 3: Develop understanding of Utility Analysis and Indifference Curve Analysis.
- CO 4: Describe the Social Responsibility of Business.
- CO 5: Understand the concept of Business Environment and its types i.e. economic, political, socio-cultural, technological, international etc.

- CO 6: Provisions of Consumer Protection Act.
- CO 7: Provisions of Environment Protection Act.

Paper: Financial Accounting PGDBM 103

- CO 1: Students can interpret accounting information for various purposes.
- CO 2: Students will learn rules regarding double entry system of book keeping.
- CO 3: They will come to know how to record, classify and summarise accounting transactions.
- CO 4: Practically, the students will be able to analyze the financial position and profitability of the organisation.
- CO 5: Students will be educated to understand the provisions of companies act 2013 regarding final accounts of company form of organisation.

Paper: Marketing Management PGDBM 104

- CO 1: Marketing management, as a part of curriculum of M.Com. Sem. 2, benefits the students by enhancing their knowledge and skill in perceiving challenges and threats of external marketing environment and developing appropriate marketing strategies to adapt with it.
- CO 2: Further, through practical examples, case studies, seminars, assignments, they learn to create suitable product, place, price and promotion mix for segmenting, targeting and positioning the market segment with the aim to satisfy consumers.
- CO 3: Besides this, building consumer value and relationship, cause related marketing, e-marketing, internal marketing, marketing research ameliorate student's ability to understand intricacies of marketing and thus, help them to adopt marketing as a profession to work at global arena.

Paper: Human Resource Management PGDBM 105

- CO 1: Students can learn about management of human resources & challenges being faced by human resource department in an organisation.
- CO 2: It will be easy for them to understand role of HRM in 21st century.
- CO 3: Subject will make them well versed with the various techniques of training, recruitment procedure being followed, and motivational aspect of human resources.
- CO 4: Practically it would be easy for them to have an idea about work patterns, diversity management & unemployment issues.

Semester-II

Paper: Production Planning and Control PGDBM 201

- CO 1: Explain the concept of Production Planning and Control and its Functions.
- CO 2: Understand Material Requirement Planning and Aggregate Planning.
- CO 3: Explain various Techniques of Production Planning and Control like Job Shop Planning, Just in Time Production, Quality Control, Line Balancing etc.
- CO 4: Describe the Procedure and Documentation in Production Planning and Control.
- CO 5: Application of Computer in Production Planning and Control.

Paper: Management and Cost Accounting PGDBM 202

- CO 1: Students will be able to calculate cost of various products and their selling price at factory level.
- CO 2: Practical aspects regarding management of stock, labour, preparation of budget and control of cost by using various techniques like marginal & standard costing are imparted with.
- CO 3: Students will be well versed with various techniques of inter and intra firm financial analysis like ratio analysis, financial statement analysis, cash flow & fund flow analysis.
- CO 4: The subject will make the students acquainted with relevance of management reporting system.

Paper: Business and Labour Law PGDBM 203

- CO 1: Students will be able to understand provisions of Indian Contract Act, 1972 in detail regarding essentials of a valid contract, how to discharge a contract, remedies for breach of contract.
- CO 2: Practically it would be easy for them to learn about concepts of Pledge, Hire Purchase, Indemnity and Guarantee and sale by Auction.
- CO 3: They become aware about Factory Act, 1948 by studying the provisions relating to health, safety & welfare of workers.
- CO 4: They are provided the knowledge of the formation of trade unions, rights and duties of its members and functioning of trade unions.
- CO 5: They will understand about the employee state insurance schemes and various benefits available to the workers like health and medical benefits provided by the govt.
- CO 6: Learners also come to know about the causes and reconciliation of industrial disputes between employer and employee, among employees and among employers. This is highly required for smooth functioning of the business.

Paper: Advertising and Sales Management PGDBM 204

- CO 1: It will Explain basic concepts like Nature, Scope, Functions and Classification of Advertising.
- CO 2: Develop understanding of DAGMAR Approach.
- CO 3: Build Advertising Programme: Message, Theme, Copy, Appeals, Layout etc.
- CO 4: Measure Advertising Effectiveness: Pre-Testing and Post-Testing Copy.
- CO 5: Understand Nature and Scope of Sales Management.
- CO 6: Recruiting and Selection of Sales Personnel.
- CO 7: Supervision and Motivation of Sales Personnel.

Department of Computer Science

Name of Programme: BCA

Course Outcomes

Semester-I

Paper: I Introduction to Programming-C

- CO1: This paper provides the basic insight of programming skills to the students who are beginning their career in various Computer Programming Languages.
- CO2: C Programming acts as the base of programming languages which will thoroughly increase the interest of students in programming field.
- CO3: All advanced computer programming languages are belonging to the base concept of C programming and learning the basic concept of this course, will help students in advance languages also.
- CO4: This language is being accepted as universal programming language; therefore the concept understanding of this language will inculcate thorough knowledge of procedures of programming language in students.
- CO5: This paper is specifically being used in a multitude of applications, including advanced scientific systems and operating systems

Paper: II Introduction to Computers and Information Technology

- CO 1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO2: Students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.

CO 3: This paper includes Microsoft Office programs which enable the students to create professional and academic documents.

CO4: Students also learn about various accounting related operations in MS Excel and presentation skills using MS PowerPoint which makes them able to work in field of office automation and desktop publishing as well.

Paper: III Applied and Discrete Mathematics

CO1: This paper provides a deep insight about the mathematical foundational topics to students.

CO2: Complete knowledge of Boolean Algebra is given through this course structure, so that students can prepare themselves for further understanding of topics related to other subjects of programme.

CO3: This helps students in many competitive exams also as the base for reasoning, quantitative techniques and graph theory as well.

Semester-II

Paper: I Introduction to Programming-C++

CO1: This paper provides the expanded knowledge of C programming language and introduces the concept of object oriented programming languages so that students can learn about the real time problem solving techniques.

CO 2: Specialized course work can be used for developing different applications, games, animations, web browser, database software, compilers etc., giving students a lot of opportunities in IT Industries as well.

CO3: Expansion of this paper is being used in system programming and embedded systems for the establishment of Computer Aided Designs and Computer Aided Manufacturing purposes also.

CO4: This Course improves the level of Logical and Analytical Thinking in Students so that they can give more emphasis on real world problem solving techniques and methods.

CO5: C++ inculcates all the required concepts, knowledgeable methodologies and structure oriented guidance in Students which motivates them to be a Good Programmer in future.

Paper: II Principles of Digital Electronics

CO1: This paper allows students to understand the internal circuitry of the processor and memory in detail explaining about process creation, performance of various calculations, number system, number conversions and K- Mapping techniques.

CO2: It enables students to get through the mathematical foundation going inside the system for the bits transfer inside the processor, converting sum of product forms into product of sum forms, generating the read-write cycles and memory writing timing diagrams.

CO3: Digital Electronics makes students learn about the internal mechanism of Arithmetic Logical Unit inside the processor performing various calculations and manipulations.

CO4: Learning Best Outcomes of this paper will motivate students to make their own hardware live projects.

CO5: Students can pursue their future in hardware engineering by having complete knowledge of electronics.

CO6: This programme will inculcates the complete knowledge of electricity and computer system handling in students.

Paper: III Numerical Methods & Statistical Techniques

CO1: This paper provides the learning insights of concept of statistical analysis of the data to the students so that they can effectively and efficiently store the data inside the systems where it will be having a low cost and timing access easily.

- CO2: In the field of computing, this paper will help the students to research and experiment about the statistical details of the data and perform mathematical calculations of the data as well.
- CO3: This gives students complete knowledge to calculate various statistical calculations on data like calculating Mean, Median, Mode, Kurtosis, Moments and Regression.
- CO4: This paper increases the critical and analytical strategies in students so that students can pursue their carrier in research and development field.

Semester-III

Paper: I Computer Architecture

- CO1: This paper provides the knowledge about the way the hardware components operate and are connected together to form the computer system along with the deeper study of Computer Internal Circuitry Board as well.
- CO2: Enhances the knowledge about the system components, circuit design, logical design, structure of instruction, computer arithmetic, processor control, assembly programming and methods of performance enhancement.
- CO3: This paper is especially designed for the students to learn hardware details so that they can work in the Field of Hardware Engineering and be able to develop Hardware Live Projects also.

Paper: II Database Management System

- CO1: This paper is very significant for the graduate students as it delivers detail understanding of database systems and its design.
- CO2: It is having big role in all types of industry/institutions because all kind of necessary data is to be stored in database.
- CO3: This paper also delivers the design and implementation of databases and generates opportunity for students to become data managers, Data base administrators and get jobs in any kind of business house.
- CO4: It provides opportunity for future development and research in the field of database techniques like data ware housing and data mining as these are the basic needs of all types of business now and in future.

Paper: III Computational Problem Solving & Statistical Techniques

- CO1: This paper is specially designed for providing the thorough knowledge of programming to students.
- CO2: Going from the basics to complete detail of the programming concept, this paper enables students to apply their own logics in computer system.
- CO3: It is being widely used in various companies and MNCs, therefore the complete knowledge of this paper will help students to get through their training projects after placements.
- CO4: Students can build up their own software projects by using the syntaxes and semantics of this programme.
- CO5: The basic foundation of this particular subject will raise the interest of students in other high level programming languages to accomplish the need of becoming a successful Software Developer.

Semester-IV

Paper: I Data Structures & File Processing

- CO1: This paper is one of the main and technical paper of BCA course after which students become able to select appropriate data structures as applied to specify problem definition.
- CO2: Students learn about application of various data structure like stacks, queues, tree, graph, linked list etc. related to different operations.
- CO3: This paper is highly necessary to learn and implement logics in computer science.
- CO4: It also includes the various concepts related to data storage in computers.

CO5: Students learn to analyse and compare algorithms for efficiency.

Paper: II Information System

- CO 1: This paper carries importance because information system management is a must for all industries/institutions by the use of information technology.
- CO 2: This paper is best suitable for all the students who want to build their carrier in the system analyst, system designer and system manager as these are special jobs for new system development and design.
- CO 3: Students can also get good opportunity in various business verticals like accounting information system, inventory management, human resource management system etc.
- CO 4: This paper is very significant in various levels of business like TPS, MIS, DSS, and ESS.
- CO 5: Students can get good jobs according to their interest and develop themselves in higher management positions.
- CO 5: This paper is important for development of new techniques in business development.

Paper: III Internet Application

- CO 1: This paper provides the understanding of various concepts related to internet where students will learn about the connection establishment, configuring the network, trouble shoot the network etc.
- CO 2: Students learn about the various measures being used for securing the network along with the help of internet protocols and increase in the use various Security Firewalls
- CO 3: Paper gives suitable information to students in order to get maximized advantages from the network by implementing an accurate type of Topology and Connecting computer system in proper order.
- CO 4: Students can pursue their carrier in the field of network security and network coordination which is presently in high demand throughout the Industry.

Paper: IV System Software

- CO 1: This paper provides complete knowledge to the students about the process generation inside the internal architecture of the systems and helps them to understand how the processing is being done inside the system.
- CO 2: Detailed insights about the Loader, Linker, Assembler and Compiler are given to the students by understanding which they can determine what the actual working is being performed inside the system when we initiate a command.
- CO 3: Study of various phases of the Compiler makes students more enthusiastic to learn about the internal process working of the system so that they can do specialization in the particular course for higher education also.
- CO 4: Students get to learn about the concept of macros, multi-threading and multiple process orientation techniques through this course work

Semester-V

Paper: I Computer Networks

- CO 1: This paper inculcates the complete knowledge of networking in students which is the most essential and advantageous in the present scenario of internet and networking.
- CO 2: Complete understanding of the specified paper provides students with the information of various network topologies, network protocols, network essentials and network controlling.
- CO 3: This Course will help students to get proper information about many network devices and their uses so that students can use them in real world also.
- CO 4: Students will thoroughly study about the transmission media and to realize and compare different LAN, MAN and WAN topologies.
- CO 5: Studying the detailed information about the internet protocols will increase the ability in students to work in the real networking development techniques.

Paper: II Web Technologies

- CO 1: This paper is highly efficient and recommended one for the provision of knowledge to students about website development and software development which will highly increase their opportunities to work in industries.
- CO 2: This course is the combination of many server side and client side programming languages like CSS, Java Script, Java Servlets, ASP.net and PHP for the successful establishment of Website or Software.
- CO 3: Students will get through the internal knowledge of back-end and front-end processes using which they will be able to design their own websites or software.
- CO 4: This paper will also provide the information about the data base connectivity along with the given front end website or software so that the students can learn about the data transfer procedures form front-end to back-end and vice-versa.

Paper: III Operating System

- CO 1: This paper explains and describes about the important computer system resources and the role of operating system in their management policies to get a better understanding about the concept of various Process Management Techniques under different operating systems available.
- CO 2: The paper gives detailed description about the process and functions of operating system in order to schedule manage and control the processes going inside the system.
- CO 3: The study of operating system helps students to analyse the memory management and its allocation policies which is the prime factor of consideration in every operating system,
- CO 4: This course helps students to identify use and evaluate the storage management policies with respect to different storage management technologies of operating systems like Windows, Linux and UNIX.

Paper: IV JAVA Programming Language

- CO 1: One of the most highly used and effective programming language JAVA, is the popular one IT sector for website and Software Development and this course give students a basic core and advanced both types of technical information about JAVA Language.
- CO 2: Students get to learn about the basic concepts of object oriented programming and basic as well as advance Java Programming constructs.
- CO 3: This programme enables students to implement the constructs and structure of the Java Programming Language in the successful creation of Java Applets and Java Services.
- CO 4: This programme is highly recommended for students in order to pursue career in software development in various MNCs in India and Abroad as well.
- CO 5: The Specialization of this will increase the opportunities for students to get jobs in the field of programming, website and software development, software testing etc.

Semester-VI**Paper: I Computer Graphics**

- CO 1: This paper provides a detailed knowledge of Computer Screen and Audio Visual Aids to Students.
- CO 2: Students will get to know about the details of Image Resolution, Pixels, Bitmap and Pixel Map which helps them to understand the process of Image Processing.
- CO 3: Computer Graphics is a kind of Programme that enables students to understand the working of CRT, LCD and LED Displays so that they can design the screen graphics according to it.
- CO 4: This helps students to get through the techniques of creating many Graphical Scenes and Scenes with Motion also which greatly helps them to create different live projects and work under various MNCs.

Paper: II Software Engineering

- CO 1: Software engineering calls upon interdisciplinary skills like critical thinking, cost analysis & project management—skills that can be enhanced in a master's program in computer science, computer engineering, information's science or software engineering.
- CO 2: This paper will help students to pursue their career in software engineering with a focus on new technologies and areas of application, such as cyber security, big data, or mobile application development etc.
- CO 3: This paper will develop a comprehensive understanding of programming, software architecture, and software testing which is in high demand in various MNCs and in vast IT Sector.

Paper: IV Project

- CO 1: The project will enable students able to identify the requirements for the real world problems and correlating them which will make them able to develop software solutions for them.
- CO 2: Project Modules make students learn logically and analytically so that they can pursue their carrier in the field of Software Development in different MNCs and industries.
- CO 3: The paper inculcates the important software developing skills in students to make them a good Software Developer in order to make projects according to the need of customers and companies.
- CO 4: This paper motivates students to work in teams and manage the conduct of the research study in near future.
- CO 5: Students can make Projects as Websites and Software in various different languages like JAVA, ASP.net, PHP and Android also.

Name of Programme: B.Sc. (IT)**Course Outcomes****Semester-I****Paper I- Fundamentals of Computers**

- CO 1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO 2: Students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.
- CO 3: This paper includes Microsoft Office programs which enable the students to create professional and academic documents.
- CO 4: Students also learn about various accounting related operations in MS Excel and presentation skills using MS PowerPoint which makes them able to work in field of Office Automation and Desktop Publishing as well.

Paper: II Introduction to Programming-C

- CO 1: This paper provides the basic insight of programming skills to the students who are beginning their course work in various computer programming languages.
- CO 2: C Programming acts as the base of programming languages which will thoroughly increase the interest of students in programming field.
- CO 3: All advanced computer programming languages are belonging to the base concept of C programming and learning the basic concept of this paper, will help students in advance languages also.
- CO 4: This Language is being accepted as Universal Programming Language, therefore the concept understanding of this language will inculcate thorough knowledge of procedures of Programming Language in Students.
- CO 5: This paper is specifically being used in a multitude of applications, including advanced scientific systems and operating systems

Paper: III Applied & Discrete Mathematics

- CO 1: This paper provides a deep insight about the mathematical foundational topics to students.
- CO 2: Complete Knowledge of Boolean Algebra is given through this paper, so that students can prepare themselves for further understanding of topics related to other subjects of Programme.
- CO 3: This paper helps students in many competitive exams also as the base for reasoning and quantitative techniques and graph theory as well.

Semester-II**Paper: I Principles of Digital Electronics**

- CO 1: This paper allows students to understand the internal circuitry of the processor and memory in detail explaining about Process Creation, Performance of Various Calculation, Number System, Number Conversions and K- Mapping Techniques.
- CO 2: This paper enables students to get through the mathematical foundation going inside the system for the bits transfer inside the processor, converting sum of product forms into product of sum forms, generating the read-write cycles and memory writing timing diagrams.
- CO 3: Digital Electronics makes students learn about the Internal Mechanism of Arithmetic Logical Unit inside the Processor performing various calculations and manipulations.
- CO 4: Learning Best Outcomes of this Paper will motivate students to make their own hardware Live Projects.
- CO 5: Students can pursue their future in Hardware Engineering by having complete knowledge of Electronics.
- CO6: This paper will inculcate the complete knowledge of electricity and computer system handling in students.

Paper: II Introduction to Programming-C++

- CO 1: This paper provides the expanded knowledge of C Programming language and introduces the concept of object oriented programming languages so that students can learn about the real time problem solving techniques.
- CO 2: Specialized paper can be used for developing different applications, games, animations, web browser, database software, compilers etc., giving students a lot of opportunities in IT Industries as well.
- CO 3: Expansion of this paperwork is being used in system programming and embedded systems for the establishment of Computer Aided Designs and Computer Aided Manufacturing purposes also.
- CO 4: This paper improves the level of Logical and Analytical Thinking in Students so that they can give more emphasis on real world problem solving techniques and methods.
- CO 5: C++ inculcates all the required concepts, knowledgeable methodologies and structure oriented guidance in Students which motivates them to be a Good Programmer in future.

Paper: III Numerical Methods & Statistical Techniques

- CO 1: This paper provides the learning insights of Concept of Statistical Analysis of the Data to the students so that they can effectively and efficiently store the data inside the systems where it will be having a low cost and timing access easily.
- CO 2: In the field of Computing, this paperwork will help the students to research and experiment about the statistical details of the data and perform mathematical calculations of the data as well.
- CO 3: This paper gives students complete knowledge to calculate various statistical calculations on Data like Calculating Mean, Median, Mode, Kurtosis, Moments and Regression.
- CO 4: This paperwork increases the critical and analytical strategies in students so that students can pursue their carrier in Research and Development Field.

Semester-III

Paper: I Introduction to Python

- CO 1: This paper is specially designed for providing the thorough knowledge of programming to students.
- CO 2: Going from the basics to complete detail of the programming concept, this programme enables students to apply their own logics in computer system.
- CO 3: This programme is being widely used in various companies and MNCs, therefore the complete knowledge of this programme will help students to get through their training projects after placements.
- CO 4: Students can build up their own Software Projects by using the syntaxes and semantics of this programme.
- CO 5: The basic foundation of this particular paper will raise the interest of students in other high level programming languages to accomplish the need of becoming a successful Software Developer.

Paper: II Data Structure

- CO 1: This paper is one of the main and technical papers of BSc. IT course after which students become able to select appropriate data structures as applied to specify problem definition.
- CO 2: Students learn about application of various data structure like stacks, queues, tree, graph, linked list etc. related to different operations.
- CO 3: This paper is highly necessary to learn and implement logics in computer science.
- CO 4: It also includes the various concepts related to data storage in computers.
- CO 5: Students learn to analyse and compare algorithms for efficiency.

Paper: III System Analysis & Design

- CO 1: This paper is specifically designed to give the knowledge about the analysing and designing procedures of a system so that students can go through inside details.
- CO 2: Students can work as System Analyser and System Handlers in various companies and IT industry.
- CO 3: This paper is very effectively providing students with the knowledge of various constructs and structures useful in analysing the system and designs a system as well.

Semester-IV

Paper: I Database Management System

- CO 1: This paper is very significant for the graduate students as it delivers detail understanding of database systems and its design.
- CO 2: It is having big role in all types of industry/institutions because all kind of necessary data is to be stored in database.
- CO 3: This paper also delivers the design and implementation of databases and generates opportunity for students to become data managers, Data base administrators and get jobs in any kind of business house.
- CO 4: It provides opportunity for future development and research in the field of database techniques like data ware housing and data mining as these are the basic needs of all types of business now and in future.

Paper: II Internet Applications

- CO 1: This paper provides the understanding of various concepts related to Internet where students will learn about the Connection Establishment, configuring the network, trouble shoot the network etc.
- CO 2: Students learn about the various measures being used for securing the network along with the help of Internet Protocols and increase in the use various Security Firewalls

- CO 3: Paper gives suitable information to students in order to get maximized advantages from the network by implementing an accurate type of Topology and Connecting Computer System in proper Order.
- CO 4: Students can pursue their carrier in the field of Network Security and Network Coordination which is presently in high demand throughout the Industry.

Paper: III JAVA & Web Designing

- CO 1: One of the most highly used and effective programming language JAVA, is the popular one IT sector for website and software development and this give students a basic core and advanced both types of technical information about JAVA language.
- CO 2: Students get to learn about the basic concepts of object oriented programming and basic as well as advance Java Programming constructs.
- CO 3: This paper enables students to implement the constructs and structure of the Java Programming language in the successful creation of Java Applets and Java Servlets.
- CO 4: This paper is highly recommended for students in order to pursue career in software development in various MNCs in India and Abroad as well.
- CO 5: The specialization of this paper is highly increasing the opportunities for students to get jobs in the field of programming, website and software development, software testing etc.

Paper: IV Web technology

- CO 1: This paper is highly efficient and recommended one for the provision of knowledge to students about website development and software development which will highly increase their opportunities to work in industries.
- CO 2: This paper is the combination of many sever side and client side programming languages like CSS, Java Script, Java Services, ASP.net and PHP for the successful establishment of website or software
- CO 3: Students will get through the internal knowledge of back-end and front-end processes using which they will be able to design their own websites or software.
- CO 4: This will provide the information about the data base connectivity along with the given front end website or software so that the students can learn about the data transfer procedures form front-end to back-end and vice-versa.

Semester-V

Paper: I Computer Networks

- CO 1: This paper inculcates the complete knowledge of Networking in students which is the most essential and advantageous in the present scenario of internet and networking.
- CO 2: Complete Understanding of the specified paper provides students with the information of various network topologies, network protocols, network essentials and network controlling.
- CO 3: This paper will help students to get proper information about many network devices and their uses so that students can use them in real world also.
- CO 4: Students will thoroughly study about the transmission media and to realize and compare different LAN, MAN and WAN Topologies.
- CO 5: Studying the detailed information about the internet protocols will increase the ability in students to work in the real networking development techniques.

Paper: II Operating System

- CO 1: This paper explains and describes about the important computer system resources and the role of operating system in their management policies to get a better understanding about the concept of various process management techniques under different operating systems available.
- CO 2: The paper gives detailed description about the process and functions of operating system in order to schedule manage and control the processes going inside the system.

- CO 3: The study of operating system helps students to analyse the memory management and its allocation policies which is the prime factor of consideration in every operating system.
- CO 4: This paper helps students to identify use and evaluate the storage management policies with respect to different storage management technologies of operating systems like Windows, Linux and UNIX.

Paper: III E-Business

- CO 1: This paper is one of the strong theoretical concepts regarding the online business.
- CO 2: This paper enables the students to clear their concept regarding traditional and online business concepts.
- CO 3: This paper helps students to understand the basics of the E-Business and techniques to handle business digitally in order to have productive outcome from the business.
- CO 4: This paper provides deep insights to students about the online payment and online banking systems.

Semester-VI

Paper: I Computer Graphics

- CO 1: This paper provides a detailed knowledge of Computer Screen and Audio Visual Aids to Students.
- CO 2: Students will get to know about the details of Image Resolution, Pixels, Bitmap and Pixel Map which helps them to understand the process of Image Processing.
- CO 3: Computer Graphics is a kind of paper that enables students to understand the working of CRT, LCD and LED Displays so that they can design the screen graphics according to it.
- CO 4: This paper helps students to get through the techniques of creating many Graphical Scenes and Scenes with Motion also which greatly helps them to create different live projects and work under various MNCs.

Paper: III Project

- CO 1: The Project will make Students able to identify the requirements for the real world problems and correlating them which will make them able to develop software solutions for them.
- CO 2: Project Modules make students learn logically and analytically so that they can pursue their carrier in the field of Software Development in different MNCs and Industries.
- CO 3: This paper inculcates the important software developing skills in students to make them a good Software Developer in order to make projects according to the need of customers and companies.
- CO 4: This paper motivates students to work in teams and manage the conduct of the research study in near future.
- CO 5: Students can make projects as websites and software in various different languages like JAVA, ASP.net, PHP and Android also.

Name of Programme: M.Sc. (Computer Science)

Course Outcomes

Semester-I

Paper: MCS-101 Advanced Data Structure

- CO 1: This paper provides the students with the deep knowledge of algorithm design and analysis and it also provide the students lot of opportunities in the IT industries. .
- CO 2: This paper also provides means for management of large dataset such as databases or internet indexing services by allowing the data use and processing on a software system.
- CO 3: Many reputed companies like Amazon, Microsoft hire students on the basis of their practical knowledge in the data structures.

Paper: MCS-102 Advanced Computer Architecture

- CO 1: The study of computer architecture and organization focuses on the interface between hardware and software, and emphasizes the structure and behaviour of the system that provides hardware details of the system to the students.
- CO 2: This paper inculcates the hardware knowledge of processor in students and it is important that computer students need a basic understanding of computer system itself in order to rectify the problems.
- CO 3: There are a fundamental relationship between hardware and the many aspects of programming and software components in computer systems. In order to write good software, it is very important to understand the computer system as a whole and this paper provides complete knowledge about the inner working of computer system.

Paper: MCS-103 Network Design & Performance Analysis

- CO 1: This paper provides students with the detail knowledge of networking concepts being highly used in modern time's technologies. And it also provides shared access to customer and product databases in a very less time
- CO 2: Network protocol analysis is a network sniffer to capture data for further analysis and understanding of the technical means necessary packets. Students can pursue their career in the field of professional network developing which is highly in demand in India and Abroad as well.
- CO 3: Best understanding of networking concepts make students more confident about the business startups in field of professional networking development.
- CO 4: This paper will enable students to get best placements as Networking Professionals and Network Developers in various companies.

Paper: MCS-104 Discrete Structures

- CO 1: Discrete Structures is of direct importance to the fields of Computer Science and Information Technology. This allows students to study areas such as set theory, logic, relations, graph theory and analysis of algorithms.
- CO 2: Modeling with discrete mathematics is an extremely important problem solving skill in which the students perform combinatorial analysis to solve counting problems and analyse algorithms.
- CO 3: This paper is a collection of techniques and algorithms relevant to all sorts of things that students often need to do programming.

Paper: MCS-105 Soft Computing

- CO 1: This paper helps to understand the basic knowledge of probability, fuzzy logic and neural networks that allows students to handle problems with imprecise and incomplete data
- CO 2: The paper inculcates the knowledge about the fuzzy logic toolbox and cover a wider range of operating conditions, more readily customizable in natural language terms.
- CO 4: This paper provides understanding of various membership functions of fuzzy logic and use of fuzzy and neural for various real world problems
- CO 5: This paper also provides understanding of the various types of neural networks and their algorithms.

Semester-II**Paper: MCS-201 Theory of Computation**

- CO 1: Students understand the mathematical laws governing efficient computation and apply this understanding to address problems in other parts of computer science
- CO 2: This paper teaches students about the elementary ways in which a computer can be made to think. It provides good problem solving skills and behind logic of any compiler.

CO 3: In theory of computation students will learn abstract machines, or model of computation, which will be defined mathematically.

Paper: MCS-203 Image Processing

CO 1: This paper will provide students useful and essential skills and experience to make career as creative professionals such as graphic designers, gallery managers, art curators, commissioning editors and art directors etc.

CO 2: Having knowledge about this paper, students will get to know about the detailed functions of image processing software so that students can learn about restoration, manipulation and development of various imaging techniques.

CO 3: This paper provides knowledge to develop the layout and production design of newspapers, magazines, corporate reports, journals and other publications.

CO 4: The advanced features of image processing are being used to develop motion picture and motivate students to work in television industry.

Paper: MCS-203 Design & Analysis of Algorithm

CO 1: A Software programmer is responsible for designing, installing, testing and maintaining of software systems. A Software Programmer has to review current systems, present ideas for system improvements, work with analysts, product specifications and write the program codes. This paper helps to inculcate all the major responsibilities of software programmer in students so that they can compete in market well.

CO 2: Students learn to design and develop many types of software like operating systems, network distribution and software for compilers through this paper.

CO 3: Through this paper students will learn to work in industries as software publishers, gaming companies and government organizations. Students can also develop their own software projects independently.

CO 4: They can pursue the carrier of a Technical writers are the technical communicators who prepare instruction manuals, journal articles and other documents to communicate complex and technical information more easily.

Paper: MCS-204 Cloud Computing

CO 1: It provides a deep knowledge to students about virtualization. Cloud environment gives our business the ability to communicate and share more easily outside of the traditional methods. If students are working on a project across different locations, they could use cloud computing to give others access to the same files.

CO 2: Through this subject students will learn about the different models used in cloud for service provided.

CO 3: With the growing number of web-enabled devices used in today's business environment (e.g. Smart phones, tablets) access to our data is even easier. And the paper enables the students to understand and learn the use of internet and cloud in various organizations.

CO 4: Moving to cloud computing may reduce the cost of managing and maintaining your IT systems. Students came to know about the energy efficiency in cloud

Paper: MCS-205 Distributed Database System

CO 1: This paper is highly specialized in which elaborate the future design and implementation in the field of networking.

CO 2: This paper provides advance development in the field of networking, storing and fetching of information.

CO 3: This helps in understanding and specialized networking techniques which ensure the processing of large information systems without any failures.

CO 4: Students learn about remote network and server processing in which data is never placed in server but data is available to user as and when required.

CO 5: This paper is having huge scope in large networks, data warehousing and data mining. Students' gets very good option for becoming good network administrator.

Semester-III

Paper: MCS-301 Advanced Software Engineering

CO 1: The Advanced Software Engineering is a newly redesigned course that enables students to extend their knowledge of, and gain valuable experience in, software engineering as it applies to a number of new and important areas of IT and computing.

CO 2: Software engineers may choose to become experts in a single programming language or type of development.

CO 3: Having knowledge of this subject, students can work as web developer, software engineer, Mobile development, Technical stack (e.g., Python, Ruby) etc.

Paper: MCS-302 System Software

CO 1: This paper provides complete knowledge to the students about the process generation inside the internal architecture of the systems and helps them to understand how the processing is being done inside the system.

CO 2: Detailed insights about the Loader, Linker, Assembler and Compiler are given to the students through this paper by understanding which they can determine what the actual working is being performed inside the system when we initiate a command.

CO 3: Study of various phases of the Compiler makes students more enthusiastic to learn about the internal process working of the system so that they can do specialization in the particular course for higher education also.

CO 4: Students get to learn about the concept of Macros, Multi- Threading and Multiple Process Orientation techniques through this course work

Paper: MCS-303 Data Mining and Warehousing

CO 1: This paper provides knowledge about how data is integrated across enterprises and industries

CO 2: This paper helps students in solving what-if analysis and various mining techniques to handle the business scenarios.

CO 3: This paper work inculcates the capability of decision making on current and historical data and its implementation

CO 4: This paper makes it understand to the students how to manage and control businesses and perform mining on the required data.

Paper: MCS-304 Concept of Core and Advanced JAVA

CO 1: This paper is one of the specialized Programme in M.Sc., which provides the detail knowledge of Java Programming Language.

CO 2: Students get to learn about the basic concepts of object oriented programming and basic as well as advance Java Programming constructs.

CO 3: This paper enables students to implement applications in Java & Java Applets.

CO 4: This paper is highly recommended for students in order to pursue career in software development.

CO 5: Students can get many job opportunities and use this language as a tool in research.

Paper: MCS-305 Network Programming

CO 1: Network programming write software programs or scripts that aid in network analysis, such as diagnostics or monitoring utilities.

CO 2: This paper helps students to integrate new software technologies into an existing network environment or to build a new environment.

CO 3: Network technicians often work the help-desk services to repair or upgrade computers. Technicians need to be familiar with the different operating systems such as Microsoft, Novell, and UNIX, as well as the basics of computer networking.

Semester-IV

Paper: MCS-401 Advanced Web Technologies

- CO 1: This subject provides combination of many languages which are useful for students to develop web sites. ASP .NET significantly reduces the amount of code required for building large and complex applications which can increase overall development speed and reduce development costs.
- CO 2: ASP.NET is an open-source server-side web application framework designed for web development to produce dynamic web pages and by implementing CSS students came to know about formatting.
- CO 3: This paper enables students to get through the inner functioning details of Asp.Net framework. Asp.Net framework is language independent, means students can choose any programming language which best suited to you application.
- CO 4: By database connectivity students came to know how the internal functionality of a web site is connected with backend.

Paper: MCS-402 Microprocessor and Its Application

- CO 1: A microprocessor is normally capable of many functions, such as word processing, calculation, and communication via Internet or telephone and this helps students to understand the detailed view of microprocessor about their functionality and their properties.
- CO 2: Students can easily extend their knowledge of writing assembly code, for the x86 assembly language and they can understand how a machine interprets instructions at low level.
- CO 3: This paper provides knowledge how a processor at the lower level receives input from the keyboards and the mice and they can learn how and why memory segmentation in a process came into existence.
- CO 5: This also allows students to understand about the real life applications of the microprocessor.

Paper: MCS-403 Object Oriented Modeling, Analysis and Design

- CO 1: OOAD is often used in the area of object oriented programming (OOP). OOP aims to produce software that is efficiently written with few instances of duplicated code.
- CO 2: Object-oriented analysis and design (OOAD) is a technological approach to analyse, design a software system or business by using Object Oriented (OO) concept.
- CO 3: An efficient analysis is only possible when we think in a way where objects can be identified. After identifying the objects the relationships between them are identified and finally the design is produced. It also provides learning of principles of relational, hierarchical and object-oriented databases
- CO 4: OOAD allows complete understanding about the current trends in data management, such as data mining and business analytics.

Paper: MCS-405P Project

- CO 1: The Project will make Students able to identify the requirements for the real world problems and correlating them which will make them able to develop software solutions for them.
- CO 2: Project Modules make students learn logically and analytically so that they can pursue their carrier in the field of Software Development in different MNCs and Industries.
- CO 3: This paper inculcates the important software developing skills in students to make them a good Software Developer in order to make projects according to the need of customers and companies.
- CO 4: This paper motivates students to work in teams and manage the conduct of the research study in near future.
- CO 5: Students can make projects as websites and software in various different languages like JAVA, ASP.net, PHP and Android also.

Name of Programme- M.Sc. (Information Technology)

Semester-I

Paper: MIT-101 Analysis and Design of Embedded System

- CO 1: Embedded System is designed to function with minimal or no human interference. This course explains embedded system concepts and architecture of embedded systems.
- CO 2: This paper also describes the architecture of PIC, AVR and DSP microcontrollers.
- CO 3: Students can learn different types of operating systems and their services used required for designing embedded systems.
- CO 4: This paper provides the knowledge about the design issues and elements for an embedded systems and tools for development of embedded systems.

Paper: MIT-102 Distributed Computing

- CO 1: This paper is highly specialized in M.Sc. (IT) which elaborates the future design and implementation in the field of networking.
- CO 2: This paper provides advance development in the field of networking, storing and fetching of information.
- CO 3: This helps in understanding and specialized networking techniques which ensure the processing of large information systems without any failures.
- CO 4: Students learn about remote network and server processing in which data is never placed in server but data is available to user as and when required.
- CO 5: This programme is having huge scope in large networks, data warehousing and data mining. Student's gets very good option for becoming good network administrator.

Paper: MIT-103 Advanced Computer Organization and Architecture

- CO 1: The study of computer architecture and organization focuses on the interface between hardware and software, and emphasizes the structure and behavior of the system that provides hardware details of the system to the students.
- CO 2: This paper inculcates the hardware knowledge of processor in students and it is important that computer students need a basic understanding of computer system itself in order to rectify the problems.
- CO 3: There are a fundamental relationship between hardware and the many aspects of programming and software components in computer systems.

Paper: MIT-104 Network Operating System

- CO 1: This paper is one of the highly specialized programme in M.Sc., which provides the detail knowledge of Network Operating System specifically Microsoft Windows Server.
- CO 2: Students get to learn about the various concepts related to Network Operating System like User/Group Management, Disk Quotas, Server Setup (WEB Server, DHCP, DNS etc.) in Windows and Linux.
- CO 3: This paper enables students to create and manage highly efficient networks using Microsoft Server product.
- CO 4: This paper is highly recommended for students as it gives them an insight into comparing Windows Server products and Linux Server Solution in order to implement network solutions in organizations.
- CO 5: Students can get many job opportunities related to Network Administrator in various industries/organizations.

Paper: MIT-105 Computational Problem Solving Using Python

- CO 1: This paper is specially designed for providing the thorough knowledge of programming to students.
- CO 2: Going from the basics to complete detail of the programming concept, this programme enables students to apply their own logics in computer system.

- CO 3: This paper is being widely used in various companies and MNCs, therefore the complete knowledge of this programme will help students to get through their training projects after placements.
- CO 4: Students can build up their own software projects by using the syntaxes and semantics of this programme.
- CO 5: The basic foundation of this particular programme will raise the interest of students in other high level programming languages to accomplish the need of becoming a successful Software Developer

Semester-II

Paper: MIT-201 Mobile Computing

- CO 1: This paper provides a deep knowledge about the different wireless communication System.
- CO 2: Through this subject student came to know about the mobile radio Propagations and how a channel is allocated to each subscriber.
- CO 3: The GSM system for mobile Computing is also taught to students.
- CO 4: A complete description of SMS (Short Message Service) and its architecture is given to students through this subject.

Paper: MIT-202 Distributed Databases

- CO 1: This paper is highly specialized in M.Sc. (IT) which elaborate the future design and implementation in the field of networking.
- CO 2: This paper provides advance development in the field of networking, storing and fetching of information.
- CO 3: This helps in understanding and specialized networking techniques which ensure the processing of large information systems without any failures.
- CO 4: Students learn about remote network and server processing in which data is never placed in server but data is available to user as and when required.
- CO 5: This paper is having huge scope in large networks, data warehousing and data mining. Students' gets very good option for becoming good network administrator.

Paper: MIT-203 Image Processing

- CO 1: This paper will provide students useful and essential skills and experience to make career in creative professionals such as graphic designers, gallery managers, art curators, commissioning editors and art directors etc.
- CO 2: Having knowledge about this paper, students will get to know about the detailed functions of image processing software so that students can learn about restoration, manipulation and development of various Imaging techniques.
- CO 3: This paper provides knowledge to develop the layout and production design of newspapers, magazines, corporate reports, journals and other publications.
- CO 4: The advanced features of image processing are being used to develop motion picture and motivate students to work in television industry.

Paper: MIT-204 Fuzzy Systems

- CO 1: This paper provides the detail knowledge of Automatic Sensor Controlled Systems to students.
- CO 2: Students get to learn about the fuzzy systems and fuzzy controllers which are mostly being used in modern automatic devices.
- CO 3: This paper is highly recommended for students in order to pursue research works also.
- CO 4: This paper enables students to apply their logics and knowledge in systems which are really near to human thinking and behavior.
- CO 5: This paper will make students understand that how human behavior is being rationalized by computer systems in robotics and live hardware systems based on sensor technologies.

CO6: Students can get many job opportunities and new visions for research after getting through this paper.

Paper: MIT-205 Network Design and Performance Analysis

CO 1: Developing networking skills almost immediately places and to make a career in virtually any sector. All the industrial sectors like the financial services, transport, manufacturing, education, technology, Government, healthcare, hospitality, and retail and so on experience shortage of skilled networking specialists.

CO 2: Students can make a mark immediately in the field you desire. The Government sectors have considerable scope for networking technology. The Defence and Intelligence services need networking specialists regularly.

CO 3: The technology is such that you can choose to start your own business as well. Networking skills can help you connect to other businesses thereby helping you to market your business and services efficiently.

Semester-III

Paper: MIT-301 Network Protocols

CO 1: This paper provides knowledge about how information is transmitted accurately and unambiguously across the systems.

CO 2: It inculcates students about the overview of creating IP addresses and their configurations

CO 3: This paper provides knowledge about different networking topologies, media, systems and their management

CO 4: Students can use different protocols to ensure integrity and security of communication of underlying network.

CO 5: This paper also helps in setting up procedures for sending and receiving messages, acknowledgement of receipt, congestion avoidance, error correction etc.

Paper: MIT-302 Advanced Web Technologies

CO 1: ASP.net supports multiple programming languages like C#, visual basic dot net, J#, C++ and service-oriented architectures.

CO 2: Student having proficiency in on programming languages can build one module of large application and can be used simultaneously with modules develop by other students having good hand in other programming language.

CO 3: ASP.net provide is reliable and flexibility. Student can develop applications for different devices like laptop, smart-phones, pocket PCs and so on using single language.

CO 4: ASP.NET drastically reduces the amount of code required to build large applications.

CO 5: Students can easily develop software using Wizards in Dot net framework.

CO6: Students can get job easily related to software development

Paper: MIT-303 Linux Administration

CO 1: Learning Linux Provides Good Job Opportunities to the students in IT sector.

CO 2: Students learns To Write Efficient, Effective Scripts with Documentation.

CO 3: As It Is Available Free of Cost and Can Easily Run on Older and Cheaper Computers It provides Substantial Financial Savings.

CO 4: It Provides High Security. Using Linux means avoiding viruses and malware.

CO 5: Improves Problem Solving Skills of the students.

Paper: MIT-304 System Simulation

CO 1: This paper is really very efficient one in M.Sc. and provide students with great insight of newly systems and their simulations.

CO 2: This paper increses the interest of students in the creation of newly computerized systems by first making their simulations.

CO 3: By complete understanding of this paper students will be able to work with various MNCs, firms and organization helping in the manufacturing of new systems.

Paper: MIT-305 Microprocessor and Its Application

CO 1: A microprocessor is normally capable of many functions, such as word processing, calculation, and communication via Internet or telephone and this helps students to understand the detailed view of microprocessor about their functionality and their properties.

CO 2: Students can easily extend their knowledge of writing assembly code, for the x86 assembly language and they can understand how a machine interprets instructions at low level.

CO 3: This paper provides knowledge how a processor at the lower level receive input from the keyboards and the mice. Students can learn how and why memory segmentation in a process came into existence.

CO 5: This also allows students to understand about the real life applications of the microprocessor.

Semester-IV

Paper: MIT-401 Advanced Java Technology

CO 1: This paper is one of the specialized programme in M.Sc., which provides the detail knowledge of Java Programming Language.

CO 2: Students get to learn about the concepts of object oriented programming and Java Programming constructs.

CO 3: This paper enables students to implement commercial applications in Java & Java Applets.

CO 4: This paper is highly recommended for students in order to pursue career in software development.

CO 5: Students can get many job opportunities and it can also act as a tool in research in some specialized fields.

Paper: MIT-402 Network Security

CO 1: This paper is highly specialized in M.Sc. (IT) which elaborate the various components involved in network security.

CO 2: This paper enables students to learn basic and advance concepts of most important component i.e. personal level firewall and gateway level firewall.

CO 3: Students are able to understand security concepts, security threats, security services and mechanisms to counter them.

CO 4: This paper discusses advance methods in designing networks from security point of view.

CO 5: This helps in understanding and choosing specialized networking security device UTM (Unified Threat Management) from a number of available devices in the market.

CO6: This paper is having large scope in industry and research.

Paper: MIT-403 Artificial Neural Network

CO 1: This paper is highly specialized in M.Sc. (IT) which elaborate the future design and implementation in the field of networking.

CO 2: It covers the present day requirement of Pattern recognition, Character recognition.

CO 3: It closely resembles the human brain networking including learning, logistics, recognitions and retaining information.

CO 4: Now a days this programme is having great significance in all fields where specialization like human is required.

CO 5: Students can get many research and job opportunity after pursuing this specialized programme.

Paper: MIT-405P Project

CO 1: The Project will make Students able to identify the requirements for the real world problems and correlating them which will make them able to develop software solutions for them.

CO 2: Project Modules make students learn logically and analytically so that they can pursue their carrier in the field of Software Development in different MNCs and Industries.

- CO 3: This paper inculcates the important in students to make them a good Software Developer in order to make projects according to the need of customers and companies.
- CO 4: This paper motivates students to work in teams and manage the conduct of the research study in near future.
- CO 5: Students can make projects as websites and software in various different languages like JAVA, ASP.net, PHP and Android also.

Name of Programme: Post Graduate Diploma in Computer Applications

Course Outcomes

Semester-I

Paper: I PC Computing-I (MS-Office)

- CO 1: This paper is the base subject for giving the basic fundamental concept of application software to the students.
- CO 2: The motive of this subject is to give knowledge of basics of computer and MS-Offices to students so that students can pursue their carrier in the field of office automation and desktop publishing.
- CO 3: This paper establish knowledge of creating effective documents, presentation slides and Excel Workbooks in students so that students can use their calibre in the field of banks, corporate sectors etc.

Paper: II PC Computing-II (Professional DTP)

- CO 1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO 2: Students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.
- CO 3: This paper includes Microsoft Office programs which enable the students to create professional and academic documents.
- CO 4: Students also learn about various accounting related operations in MS Excel and presentation skills using MS PowerPoint.

Paper: III Fundamentals of Computer and OS

- CO 1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO 2: Students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.
- CO 3: This paper includes Microsoft Office programs which enable the students to create professional and academic documents.
- CO 4: Students also learn about various accounting related operations in MS Excel and presentation skills using MS PowerPoint which makes them able to work in field of Office Automation and Desktop Publishing as well.

Paper: IV Database Management System

- CO 1: This paper is very significant for the graduate students as it delivers detail understanding of database systems and its design.
- CO 2: It is having big role in all types of industry/institutions because all kind of necessary data is to be stored in database.
- CO 3: This paper also delivers the design and implementation of databases and generates opportunity for students to become data managers, Data base administrators and get jobs in any kind of business house.
- CO 4: It provides opportunity for future development and research in the field of database techniques like data ware housing and data mining as these are the basic needs of all types of business now and in future.

Semester-II

Paper: I Network Concepts and Management

- CO 1: This paper inculcates the complete knowledge of Networking in students which is the most essential and advantageous in the present scenario of Internet and Networking.
- CO 2: Complete Understanding of the specified paper provides students with the information of Various Network Topologies, Network Protocols, Network Essentials and Network Controlling.
- CO 3: This paper will help students to get proper information about many Network Devices and their Uses so that students can use them in Real World also.
- CO 4: Students will thoroughly study about the transmission media and to realize and compare different LAN, MAN and WAN Topologies.
- CO 5: Studying the detailed information about the Internet Protocols will increase the ability in students to work in the real networking development techniques.

Paper: II Programming in C

- CO 1: This paper provides the basic insight of programming skills to the students who are beginning their course work in various Computer Programming Languages.
- CO 2: C Programming acts as the base of Programming Languages which will thoroughly increase the interest of students in Programming Field.
- CO 3: All Advanced Computer Programming Languages are belonging to the base concept of C Programming and Learning the basic concept of this course, will help students in Advance Languages also.
- CO 4: This Language is being accepted as Universal Programming Language, therefore the concept understanding of this language will inculcate thorough knowledge of procedures of Programming Language in Students.
- CO 5: This paper is specifically being used in a multitude of applications, including advanced scientific systems and operating systems

Paper: III Introduction to Scripting Language, Web Designing & Uses of Internet

- CO 1: This paper work is highly efficient and recommended one for the provision of knowledge to students about Website Development and Software Development which will highly increase their opportunities to work in industries.
- CO 2: This paper is the combination of many Server Side and Client Side Programming Languages like CSS, Java Script, Java Servlets, ASP.net and PHP for the successful establishment of Website or Software.
- CO 3: Students will get through the internal knowledge of Back- End and Front- End Processes using which they will be able to design their own Websites or Software.
- CO 4: This paper will also provide the information about the Data base Connectivity along with the given Front End website or software so that the students can learn about the Data Transfer Procedures forms Front-End to Back-End and Vice-Versa.

Paper: IV Multimedia Systems

- CO 1: This paper is used to become graphic designers and by having knowledge of this subject, they have the desired skills in Drawing, Lay outing, Typography, Lettering, Diagramming, and Photography.
- CO 2: This subject gives us knowledge to develop the layout and production design of newspapers, magazines, corporate reports, journals and other publications.
- CO 3: Students can also create marketing brochures for services and products, promotional displays packaging, design distinctive logos for businesses and products.

Name of Programme: Diploma in Computer Applications

Course Outcomes

Semester-I

Paper: I Information Technology and Operating System

- CO 1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO 2: Students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.
- CO 3: The study of Operating System helps students to analyse the memory management and its allocation policies which is the prime factor of consideration in every Operating System,
- CO 4: This paper helps students to identify use and evaluate the storage management policies with respect to different storage management technologies of Operating Systems like Windows, Linux and UNIX.

Paper: II PC Computing-I

- CO 1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO 2: Students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.
- CO 3: This paper includes Microsoft Office programs which enable the students to create professional and academic documents.
- CO 4: Students also learn about various accounting related operations in MS Excel and presentation skills using MS PowerPoint which makes them able to work in field of Office Automation and Desktop Publishing as well.

Semester-II

Paper: I Database Management System

- CO 1: This paper is very significant for the graduate students as it delivers detail understanding of database systems and its design.
- CO 2: It is having big role in all types of industry/institutions because all kind of necessary data is to be stored in database.
- CO 3: This paper also delivers the design and implementation of databases and generates opportunity for students to become data managers, Data base administrators and get jobs in any kind of business house.
- CO 4: It provides opportunity for future development and research in the field of database techniques like data ware housing and data mining as these are the basic needs of all types of business now and in future.

Paper: II PC Computing-II

- CO 1: This paper is specifically providing complete knowledge about MS-Access to students and giving them thorough knowledge about the Database Establishment and Connection.
- CO 2: MS-Access is being used in various big organizations, industries and MNCs for making the handling of data more simpler and much efficient and better understanding of this paper will help students to control this type of work in various Offices as well.
- CO 3: Students get to learn about the process of creating Tables and making the concept of Database handling more presentable and understanding for the Software Developers as well.

Name of Programme: B.A. /B.Sc. (Computer Science)/B.Sc. (Economics)

Course Outcomes

Semester-I

Paper: Computer Fundamental & PC Software

- CO 1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO 2: After completing this paper, students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.
- CO 3: This paper includes Microsoft Office programs which enable the students to create professional and academic documents.
- CO 4: Students also learn about various accounting related operations in MS Excel and presentation skills using MS PowerPoint which makes them able to work in field of Office Automation and Desktop Publishing as well.

Semester-II

Paper: Programming Using C

- CO 1: This paper provides the basic insight of programming skills to the students who are beginning their course work in various Computer Programming Languages.
- CO 2: C Programming acts as the base of Programming Languages which will thoroughly increase the interest of students in Programming Field.
- CO 3: All Advanced Computer Programming Languages are belonging to the base concept of C Programming and Learning the basic concept of this course, will help students in Advance Languages also.
- CO 4: This Language is being accepted as Universal Programming Language; therefore the concept understanding of this language will inculcate thorough knowledge of procedures of Programming Language in Students.

Semester-III

Paper: Computer Oriented Numerical and Statistical Methods

- CO 1: This paper provide the learning insights of Concept of Statistical Analysis of the Data to the students so that they can effectively and efficiently store the data inside the systems where it will be having a low cost and timing access easily.
- CO 2: In the field of Computing, this course work will help the students to research and experiment about the statistical details of the data and perform mathematical calculations of the data as well.
- CO 3: This paper give students complete knowledge to calculate various statistical calculation on Data like Calculating Mean, Median, Mode, Kurtosis, Moments and Regression.
- CO 4: This paper work increases the critical and analytical strategies in students so that students can pursue their carrier in Research and Development Field.

Semester-IV

Paper: Data Structures & Programming Language Using C++

- CO 1: Students become able to select appropriate data structures as applied to specify problem definition.
- CO 2: Students learn about application of various data structure like stacks, queues, tree, graph, linked list etc. related to different operations.
- CO 3: This paper is highly necessary to learn and implement logics in computer science.
- CO 4: It also includes the various concepts related to data storage in computers.
- CO 5: Students learn to analyze and compare algorithms for efficiency.

Semester-V

Paper: Data Base Management System & Oracle

- CO 1: This paper is very significant for the graduate students as it delivers detail understanding of database systems and its design.
- CO 2: It is having big role in all types of industry/institutions because all kind of necessary data is to be stored in database.
- CO 3: This paper also delivers the design and implementation of databases and generates opportunity for students to become data managers, Data base administrators and get jobs in any kind of business house.
- CO 4: It provides opportunity for future development and research in the field of database techniques like data ware housing and data mining as these are the basic needs of all types of business now and in future.

Semester-VI

Paper: Information Technology

- CO 1: This paper provides the deep insight to students about Information Technology and Networking so that students can understand the basic concepts of Internet and Computer Networks.
- CO 2: This paper structure provides with the complete knowledge of Protocols, Topologies and Latest Technologies with the advancements in the field of Networking.
- CO 3: This paper provides the knowledge of cables, connections, connectors and all the required technologies for Networking like IEEE, TCP/IP etc.

Name of Programme: B.A. (Bachelor of Arts)

Course Outcomes

Computer Application (Vocational)

Semester-I

Paper: Computer Fundamental & Pc Software

- CO1: This paper provides fundamental information about computer and its working. A number of devices that can be attached with a machine now a day are also discussed.
- CO2: After completing this paper, students become able to bridge the fundamental concept of computers with their present level of knowledge about computers.
- CO3: This paper includes Microsoft Office programs which enable the students to create professional and academic documents.
- CO4: Students also learn about various accounting related operations in MS Excel and presentation skills using MS PowerPoint which makes them able to work in field of Office Automation and Desktop Publishing as well

Semester-II

Paper: Programming Using C

- CO1: This paper provides the basic insight of programming skills to the students who are beginning their course work in various Computer Programming Languages.
- CO2: C Programming acts as the base of Programming Languages which will thoroughly increase the interest of students in Programming Field.
- CO3: All Advanced Computer Programming Languages are belonging to the base concept of C Programming and Learning the basic concept of this course, will help students in Advance Languages also.
- CO4: This Language is being accepted as Universal Programming Language, therefore the concept understanding of this language will inculcate thorough knowledge of procedures of Programming Language in Students.

CO5: This Paper Work is specifically being used in a multitude of applications, including advanced scientific systems and operating systems

Semester-III

Paper: Operating System

CO1: This Paper Work explains and describes about the important computer system resources and the role of operating system in their management policies to get a better understanding about the concept of various Process Management Techniques under different Operating Systems available.

CO2: The paper gives detailed description about the process and functions of Operating System in order to schedule, manage and control the processes going inside the system.

CO3: The study of Operating System helps students to analyze the memory management and its allocation policies which is the prime factor of consideration in every Operating System,

CO4: This paper helps students to identify use and evaluate the storage management policies with respect to different storage management technologies of Operating Systems like Windows, Linux and UNIX.

Semester-IV

Paper: Relational Data Base Management Systems & Oracle

CO1: This paper is very significant for the graduate students as it delivers detail understanding of database systems and its design.

CO2: It is having big role in all types of industry/institutions because all kind of necessary data is to be stored in database.

CO3: This paper also delivers the design and implementation of databases and generates opportunity for students to become data managers, Data base administrators and get jobs in any kind of business house.

CO4: It provides opportunity for future development and research in the field of database techniques like data ware housing and data mining as these are the basic needs of all types of business now and in future.

Semester-V

Paper: Internet and Web Designing

CO1: This paper provides the understanding of various concepts related to Internet where students will learn about the Connection Establishment, configuring the network, trouble shoot the network etc.

CO2: Students learn about the various measures being used for securing the network along with the help of Internet Protocols and increase in the use various Security Firewalls

CO3: Paper gives suitable information to students in order to get maximized advantages from the network by implementing an accurate type of Topology and Connecting Computer System in proper Order.

CO4: Students can pursue their carrier in the field of Network Security and Network Coordination which is presently in high demand throughout the Industry.

Semester-VI

Paper: Business Data Processing

CO 1: This paper is specially designed for the final year students in order to provide them with the information of basic need of Computer in different companies and organizations so that students can work accordingly.

CO 2: Business Data Processing enables the students to understand the Latest terms and technologies being used in companies so that students can work under the Live Software of Payroll Systems, Enterprise Software, and Data Warehousing Software etc.

CO 3: This paper gives a better understanding to students about the working of Developer 2000 Software which is being used in Companies and Organizations for the handling of Employee

Data.

Department of Physics

Name of Programme: B.Sc. (Non-Medical)/ (Computer Science)

Course Outcomes

Semester-I

Paper: Mechanics

- CO 1: Students will learn about different coordinate systems: Cartesian and spherical polar Co-ordinate systems and their practical applications to find various physical quantities.
- CO 2: Students will know how to reduce two body problem into one body problem.
- CO 3: Students will be able to understand motion of a body under central forces
- CO 4: Students will become familiar with the concept of inertial and non-inertial frames.
- CO 5: Students will be able to appreciate the effect of non-inertial frames in national phenomenon e.g.variation of acceleration due to gravity with latitude coriolis force and its applications.
- CO 6: Students will understand its elastic collisions in lab and C.M systems and Rutherford scattering.
- CO 7: Students will appreciate the concept of precession and its applications as elementary gyroscope.

Paper: Electricity and Magnetism

- CO 1: Students will learn about the basic ideas of vector calculus and their physical significance.
- CO 2: Students will understand the concept of Electric field and potential difference due to different types of distribution of charges.
- CO 3: Students will know about the magnetic properties of the material and their behaviour in the magnetic field.

Semester-II

Paper: Relativity and Electromagnetism

- CO 1: Students will be able to understand the special theory of relativity.
- CO 2: Further, they will have an idea about the concept of Minkowski space and four vector formulism.
- CO 3: They will learn about Hall effect and its applications.
- CO 4: Students will understand about coupling of electrical circuits and their basic concepts.
- CO 5: Students will know about the fundamentals of E.M Waves and response of different media to E.M Waves.

Paper: Vibrations and Waves

- CO 1: Students will learn about the simple Harmonic Motion, free, damped and forced oscillators.
- CO 2: Students will understand the concept of Coupled oscillators.
- CO 3: They will learn about the concept of impedance matching for propagation of wave through different media.

Semester-III

Paper: Statistical Physics

- CO 1: Students will gain knowledge about the basic laws of statistical physics and its scope.
- CO 2: Concept of microstate, macrostate and Phase space will be introduced to the students.
- CO 3: They will learn about the basic approaches of Maxwell Boltzmann, Bose Einstein and Fermi Dirac statistics.
- CO 4: Students will learn about the concept of entropy and its application to explain various natural phenomena.

CO 5: Maxwell Thermodynamics relations and their applications in different processes will be introduced to the students.

Paper: Optics

- CO 1: Students will learn about interference of light by division of amplitude and wave front.
CO 2: Students will study the applications of interference of light in non-reflecting thin films and optical devices.
CO 3: Concept of polarization and methods to polarize light will be introduced to them.
CO 4: They will learn about construction and application of Nicol prism, Quarter and Half wave plate.

Semester-IV

Paper: Quantum Mechanics

- CO 1: Students will learn about the formalism of Wave mechanics, Normalization and Probability interpretation of wave function.
CO 2: They will study about the concept of wave particle duality.
CO 3: The concept of Uncertainty Principle and its applications will be introduced to the students.
CO 4: Students will be introduced to operator formalism and fundamental postulates of wave mechanics.
CO 5: Students will study about Schrodinger equation for free as well for particle subjected to forces. Moreover, they will learn to apply Schrodinger equation to various problems of Physics.
CO 6: Students will gain knowledge about X rays, different methods of production of X rays and their interaction with material.

Paper: Atomic Spectra and Laser

- CO 1: Students will understand the one electron atomic spectra, concept of Zeeman effect, Spin orbit coupling, Lande's-g factor will be introduced to them.
CO 2: Students will study about the spectra of many electron systems e.g. of Helium and Alkaline Earth Spectra.
CO 3: Moreover, they will learn about the LS, JJ Coupling schemes.
CO 4: Students will understand the fundamentals of Laser. They will be given knowledge about the basic condition required for the laser action.
CO 5: They will learn about the principle, Construction and working of different lasers: Ruby laser, Nd:YAG laser, He-Ne and Carbon dioxide laser. Further, they will study about the practical applications of lasers. Concept of Holography will be introduced to them.

Semester-V

Paper: Condensed Matter Physics

- CO 1: Students will learn about the basics of crystal structure and symmetries operation in two and three dimensional crystals.
CO 2: Experimental methods for crystal structure studies will be introduced to the students.
CO 3: Students will be able to understand various reciprocal lattice, construction of Brillouin Zone in Two and three dimensions.
CO 4: Concept of Phonons will be introduced to the students. Moreover, they will be able to calculate the density of modes of vibrations.
CO 5: Students will learn about the basic concepts of band theory and differentiate between conductors, semi-conductors and insulator using Kronig-Penny model.

Paper: Electronics

- CO 1: Students will study about the junction diodes and their applications.
CO 2: Students will learn about transistors and the characteristics of their different configurations.

- CO 3: Students will gain knowledge about h parameters and their use for amplifier analysis.
 CO 4: They will understand the concept of feedback and use of negative feedback in amplifiers.
 CO 5: They will understand Barkausen condition for sustained oscillations as well as construction and working of different types of oscillators.

Semester-VI

Paper: Nuclear Physics

- CO 1: Students will learn about the constituents of nucleus and various properties of nucleus.
 CO 2: Students will be introduced with the various modes of decay of radioactive nuclides and the laws governing the radioactive decay.
 CO 3: Students will gain knowledge about different types of nuclear reactions, their reaction cross section and conservation laws followed by them.
 CO 4: They will be explained different Nuclear models- Liquid drop model and shell model.

Paper: Radiation and Particle Physics

- CO 1: Students will be introduced to various types of accelerators used for accelerating the charge particles.
 CO 2: They will learn about Large Hadron Collider, which is world's largest accelerator.
 CO 3: Different modes of interaction of heavy charge particle with matter will be introduced. They will learn how the incident particle losses its energy when it enter into the matter.
 CO 4: Students will learn Bethe-Bloch formula which tells about the energy loss per unit length when a charged particle enters into the matter.
 CO 5: Students will be introduced to various ways of interaction of gamma rays with matter. Photoelectric effect, Compton effect and pair production processes will be explained to them.

Department of Chemistry

Name of Programme: B.Sc. (Medical)/ (Non-Medical)/ (Computer Science)

Course Outcomes

Chemistry

Semester-I and II

Paper: Inorganic Chemistry

- CO 1: This course imparts essential knowledge regarding Quantum mechanical approach to atomic structure, periodic properties, general characteristics of all the elements, their compounds, structure and preparation methods of compounds, chemical bonding, semi-conductors and defects in solids.
 CO 2: Students get a thorough knowledge on overall inorganic chemistry. They learn role of metal in living system.
 CO 3: Students learn modern theories of Acids and Bases.

Paper: Organic Chemistry

- CO 1: This course make students capable of understanding and learning nomenclature and classification of organic compounds and basic concepts of organic chemistry like- reaction mechanism, intermediates and attacking reagents etc.
 CO 2: Students learn preparation and properties of organic compounds like Hydrocarbons, Haloalkanes and Aromatic compounds.

Paper: Physical chemistry

- CO 1: This course enables the students to learn about the various states of matter (colloids, gaseous, liquid and solutions) with their properties, inter-particle forces and laws governing these states.

Paper: Practicals

- CO 1: Course develops the skills to determine physical constants like melting points and boiling points.
 CO 2: Develops skill of crystallization.

CO 3: Develops skill regarding systematic qualitative analysis of inorganic mixtures containing two acidic and two basic radicals by semi micro method of analysis.

CO 4: Students learn and perform experiments related to physical chemistry i.e. Surface tension, viscosity Chemical Kinetics and Thermodynamics.

Semester-III and IV

Paper: Inorganic Chemistry

Students learn about:

CO 1: Advanced Theories on coordination Chemistry, Structure, Bonding and Stereochemistry of important Coordination Compounds.

CO 2: Redox behaviour of elements.

CO 3: Non-Aqueous solvents.

CO 4: Chemistry of Lanthanides and Actinides.

CO 5: Bioinorganic Chemistry.

Paper: Organic Chemistry

Students are imparted a thorough knowledge about:

CO 1: Modern Aspects of stereochemistry

CO 2: Synthesis and properties of some important class of organic compounds with mechanism.

CO 3: Organometallic compounds

CO 4: Heterocyclic compounds

Paper: Physical chemistry

Students get acquainted with the knowledge of:

CO 1: Basic concepts and Laws of Thermodynamics

CO 2: Distribution Law

CO 3: Chemical and Phase Equilibrium

Paper: Practical

Students are exposed to the skills of:

CO 1: Techniques of Thin Layer Chromatography

CO 2: Quantitative estimations of different ionic species using different branches of Volumetric and Gravimetric Analysis

CO 3: Qualitative analysis of organic compounds with synthesis of their derivatives and physical constant determinations.

Semester-V and VI

Paper: Inorganic chemistry

Students learn:

CO 1: Crystal Field Splitting in coordination complexes, their stability, colour and magnetic properties and use of magnetic moments for interpretation of their structures.

CO 2: Electronic transitions, selection rules and Term symbols.

CO 3: Thorough knowledge of Organometallic chemistry.

Paper: Organic Chemistry

Students are introduced to:

CO 1: Different spectroscopic methods of analysis which includes UV, IR & NMR techniques.

CO 2: Study of Carbohydrates, Polymers, Organosulphur compounds, Amino acids, Proteins, RNA and DNA.

CO 3: Synthesis of different organic compounds via enolate ions.

Paper: Physical chemistry

Students are exposed to the study of:

CO 1: Various forms of electrochemical cells.

CO 2: Conductance and related laws.

- CO 3: Nuclear reactions
- CO 4: Physical aspects of various branches of Spectroscopy.
- CO 5: Quantum mechanics
- CO 6: Various types of Crystal Systems
- CO 7: Photochemistry

Paper: Practical

Students are introduced to the techniques of:

- CO 1: Synthesis of organic and inorganic compounds
- CO 2: Column chromatography
- CO 3: Various physical chemistry experiments related to conductometry and refractometry.
- CO 4: Rast method, Distribution Law and Adsorption Isotherm

Name of Programme: B.Sc.(Biotechnology)

Course Outcomes

Chemistry

Semester-I and II

Paper: BT-3 Inorganic Chemistry

This course provides detailed knowledge about:

- CO 1: Coordination compounds and various theories like VBT, CFT & MOT explaining the bonding in these compounds.
- CO 2: Macrocyclic ligands, Carbonyl compounds, Bioinorganic compounds like Haemoglobin, Myoglobin, Carboxypeptidase, chlorophyll etc and the role of metal ions in these compounds.

Paper: BT-4 Organic Chemistry

- CO 1: This paper provides detailed knowledge about all types of Isomerism i.e Conformational, Geometrical and Enantiomerism, Sequence rules for E, Z or S, Specification to the compounds, Structures, Nomenclature, preparation methods and properties with mechanism of different functional groups.

Semester-III and IV

Paper: Physical Chemistry

This course provides detailed knowledge about:

- CO 1: Chemical thermodynamics, Solutions, various types of solutions, colligative properties, Van't Hoff factor, Phase equilibria, various phase diagrams.
- CO 2: Electrochemical cells their types, Nernst Equation.
- CO 3: Chemical kinetics and Rate order Equations.

Semester-V and VI

Paper: Spectroscopy

This course provides detailed knowledge about:

- CO 1: UV visible spectroscopy
- CO 2: Infrared spectroscopy
- CO 3: Nuclear, Magnetic Resonance Spectroscopy
- CO 4: This course helps in structure elucidation of newly synthesized compounds.

Name of Programme: M.Sc.(Chemistry)

Semester-I

Paper: Ligand Field theory

- CO 1: This course imparts essential knowledge in the field of understanding of LFT.
- CO 2: This course helps students to understand various concepts of LFT like symmetry, MOT for metal complexes, Inter electronic repulsions, Free ion in medium and strong crystal field, Magnetic properties and Electronic spectra of transition metal complexes.

Paper: Organic Reaction Mechanism-I

- CO 1: This course makes students capable to understand various reactions involved in Organic mechanism.
- CO 2: Students learnt about stereochemistry, aromatic compounds, nature of bonding in organic reactions, reaction mechanism, structure and reactivity, Aliphatic Nucleophilic Substitution, Aliphatic Electrophilic Substitution and Aromatic Nucleophilic Substitution.

Paper: Physical Chemistry-Thermodynamics

- CO 1: This course provided detailed knowledge about thermodynamics which is one of the most important topics of Physical chemistry.
- CO 2: Students gained information about:
Classical Thermodynamics
Statistical Thermodynamics
Partition Functions
Non- Equilibrium Thermodynamics

Paper: Spectroscopy-A

- CO 1: This course makes student aware of different spectroscopic technique used in elucidation of structure and bonding of organic compounds.
- CO 2: Students learn instrumentation of Nuclear Magnetic Resonance, Mass Spectroscopy, Ultraviolet and Visible Spectroscopy and Infrared Spectroscopy
- CO 3: Students solve various structural problems by combined use of NMR, Mass, Electronic and vibrational Spectroscopic techniques.

Paper: Computer for Chemists

- CO 1: Students come to know about various applications of computers in chemistry.
- CO 2: Students develop skills in Programs in C-Language. Students also make programs for calculation of mean, median and Mode, calculation of Bohr Orbit and many more.

Paper: Inorganic Chemistry Practical**Quantitative Analysis-**

- CO 1: Students learn and perform various types of titration and analysis in their practical.
- CO 2: Students perform:
Oxidation- Reduction Titrations
Precipitation Titrations
Complexometric Titrations
Gravimetric Analysis

Paper: Organic Chemistry Practical

- CO 1: Students carry out experiments of purification and characterization of organic compounds.
- CO 2: Students learn about thin layer chromatography.
- CO 3: Students synthesize various organic compounds and also extracted of caffeine from tea leaves and isolation of casein from milk.

Semester- II**Paper: Organometallic Chemistry**

- CO 1: Students gain knowledge about bonding inorganometallic compounds.
- CO 2: Students learn about energy, polarity and reactivity of M-C bonds.
- CO 3: Students also understand the reactions of coordination ligands and pi-acid ligands.

Paper: Organic Reactions Mechanism-II

- CO 1: Students come to know about various reactions and mechanism in this course.
- CO 2: Students learn about:
Free Radical Reactions
Elimination Reactions

Addition to Carbon-Carbon Multiple bonds
Addition to Carbon-Hetero Multiple bonds
Formation of Carbon-Carbon bonds
Oxidation
Reduction

Paper: Physical Chemistry-Quantum Chemistry

CO 1: Students come to know about quantum mechanics in this course

CO 2: Students study.

Quantum theory: Introduction and principles
Operators and Observations
Application of Quantum Postulates
Angular Momentum
General Orbital theory of Conjugated Systems
The Approximate Methods

Paper: Reaction Mechanics and Metal Clusters

CO 1: Students are imparted knowledge about reaction mechanics and metal clusters

CO 2: Students learn:

Reaction Mechanism of Transition Metal Complexes
Electron transfer reaction
Inner sphere and outer sphere Electron transfer reactions
Metal-Ligand Equilibria in Solution
Inorganic Rings, Chains and Metal Cluster

Paper: Spectroscopy – B

CO 1: Students gain knowledge about:

Symmetry and Point groups
Vibration and Rotation Spectroscopy: Infrared, Raman and Microwave and their applications
Photo Electron Spectroscopy
Electron Spin Resonance Spectroscopy
Nuclear Quadruple Resonance Spectroscopy
Mossbauer Spectroscopy

CO 2: Students also learn about various Spectroscopic instruments used in structure elucidation of inorganic compounds.

Paper: Mathematics for Chemists (For Medical Students)

CO 1: Students are able to solve various problems of:

Trigonometry and Determinants
Matrices
Differential Calculus
Integral Calculus

CO 2: Students learn various methods and tricks of mathematics which would be helpful in Chemistry.

Paper: Biology for Chemists (For Non-Medical Students)

CO 1: This course enables students to deal with biology involved in chemistry.

CO 2: Students come to know about:

The Organization of Life
Genetics
The Diversity of Life

Students also learn about the cell organization and classification of living things in this course.

Paper: Organic Chemistry Practical

CO 1: Students learn how to synthesize organic compounds in this practical.

CO 2: Students perform multistep organic synthesis by using various apparatus like reflux condenser.

CO 3: Students also perform quantitative analysis of organic compounds.

Paper: Physical Chemistry Practical

CO 1: Students understand various methods of determining strength of Acids and Bases by using pHmeter and conductometer.

CO 2: Students perform various titrations to determine Dissociation constant, Equilibrium constant, solubility.

Department of Zoology

Name of Programme: B.Sc. Medical

Course Outcomes

Semester-I and II

Paper: IA Cell Biology

CO 1: To acquaint students with the central role of cell in the biological organization.

CO2: To educate students about the structure and function of various cell organelles along with their molecular interaction within and out of the cell.

CO 3: Students are provided the knowledge regarding the basic techniques such as microscopy (light, phase contrast and electron microscopy), fixation and staining techniques, used in the study of cell and its abnormalities as well as the principle of these techniques

CO 4: Students are educated about the cellular transformations leading to the development of cancer and the cellular level of immunity.

Paper: IB and IIB Biodiversity

CO 1: To acquaint students with different levels of biological diversity and the evolutionary links between different phyla.

CO 2: To educate students about the scientific classification of invertebrate fauna and equip them with the ability to recognize the organism using the taxonomic characters of particular phylum.

CO 3: Students are provided the knowledge regarding morphological, anatomical and physiological features of type specimens of each phylum along with their economic importance.

CO 4: Introduction to the pathogenic organisms, their life cycle including the larval stages, mode of transmission, their pathogenicity and the parasitic adaptations.

CO 5: To create interest for preparation of natural compost out of kitchen and garden waste such as vermicomposting by using earthworms.

CO 6: To stimulate curiosity among the students regarding social life in insects such as honey bees and termites and educate them about the importance of coordination and social behaviour in the living world.

Paper: II A Ecology

CO 1: To educate students about the basic principles, subdivisions and scope of ecology in biology, environmental sciences and the various challenges faced by the relevant parts of social sciences.

CO 2: To create awareness among the students regarding the structure and functioning of ecosystems, the distribution and occurrence of living organisms in the physical environment, the complexity of interactions between organisms and their environments.

CO 3: The students acquainted with the components of major ecosystems of the world, ecological energetic, ecological succession, biogeochemical cycles, productivity and concepts of limiting factors.

CO 4: The students are provided information regarding challenges posed by different environmental conditions and the various adaptations acquired by the organisms to survive in the particular habitats.

- CO 5: Curiosity of students is being aroused towards inter and intra specific interactions such as commensalism, mutualism, parasitism and predation occurring among the organisms.
- CO 6: Awareness is created among the students regarding the causes, impact and control measures of increasing environmental pollution.

Semester-III and IV

Paper: IIIA (Evolution)

- CO 1: Understand the central role of evolution in describing the origin and diversification of biodiversity, its maintenance and how we should conserve it or methods of its conservation.
- CO 2: To acquaint students with basic concepts of origin of life, theories and evidences of evolution, concepts of micro, macro and mega evolution.
- CO 3: To educate students about the eras and geological time scale, evolutionary rate, emergence of various species, origin and extinction of reptiles with special reference to climate change and the evolution of man.
- CO 4: Students are provided the knowledge regarding fossils, its types and the significance of fossils in analysing the evolution of various life forms in respective eras and the factors responsible for their extinction.
- CO 5: Students are educated about the concept of adaptive radiations by with the help of peculiar examples, various adaptations, migration and parental care shown by various species.

Paper: IIIB Biodiversity-III

- CO 1: To educate students about the hierarchy and diversity of chordates, basic characteristic features of chordates and the organisms showing affinities with both Chordates and Non-chordates.
- CO 2: The detailed knowledge of structural organization and functioning of various systems in organisms belonging to different phyla, the type study of a representative specimen of each phylum is provided to the students.
- CO 3: stimulate curiosity among the students regarding social life in insects such as honey bees and termites and educate them about the importance of coordination and social behaviour in the living world.
- CO 4: The students are imparted knowledge regarding the adaptations and economic importance of specific vertebrates.

Paper: IVA Biochemistry

- CO 1: To educate students about the basic principles and chemistry of living organisms, the scope of biochemistry in clinical diagnosis, manufacturing of biological products and treatment of diseases.
- CO 2: To familiarize the students to various biochemical pathways occurring in living systems, the importance of biomolecules.
- CO 3: To create awareness among the students regarding the biochemical functioning of human body, its organs, and the cells of which they are composed.
- CO 4: The students are acquainted with the structure and functions of macromolecules such as carbohydrates, lipids, proteins and nucleic acids as well as the nature and classification of enzymes including the role of coenzymes in the normal functioning of enzymes.

Paper: IV B Animal Physiology

- CO 1: To educate students about the basic principles and fundamentals of animal physiology.
- CO 2: The students are acquainted with the components of major ecosystems of the world, ecological energetic, ecological succession, biogeochemical cycles, productivity and concepts of limiting factors.
- CO 3: The students are provided information regarding the detailed concepts of various physiological processes such as digestion, respiration, excretion, circulation, etc. occurring in the human body which is crucial for its survival.

- CO 4: Curiosity of students is being aroused towards coordination and integration of nervous system with endocrine system.
- CO 5: Awareness is created among the students regarding the physiology of behaviour, learning and reasoning.

Semester-V and VI

Paper: VA Developmental Biology

- CO 1: To introduce the students to the fundamentals of developmental biology, various stages in the development of embryo and gametogenesis.
- CO 2: The students are familiarized with the role of organizer and inducers in the development of embryo, the basic concepts of determination, differentiation and gastrulation.
- CO 3: The students are provided information regarding the formation of foetal membranes, their role, and development of frog, chick and rabbit upto three germinal layers, their fate maps and the nature and physiology of placenta.
- CO 4: The students are equipped with the knowledge of metamorphosis, regeneration, ageing and death.

Paper: VB Genetics

- CO 1: To familiarize students with the central role of genetics in the study of biology and the life of an organism.
- CO 2: The students are provided the information regarding genetic variation through crossing over, recombination and linkage, the concepts of multiple alleles, qualitative and quantitative multiple factors, their inheritance, non-allelic gene interaction and modifications of Mendelian ratios.
- CO 3: The students are able to understand the basic concepts of gene and genetic code, replication and transcription of DNA, expression of genes and their regulation.
- CO 4: The students are also acquainted with the extranuclear inheritance and spontaneous and induced mutations, physical and chemical mutagens, somatic mutations and carcinogenesis.

Paper: VI A& B Medical Zoology&Medical Laboratory Technology

- CO 1: The students are introduced to the terminology of Parasitology, various pathogenic microbes, their life history, and mode of infection, pathogenicity with reference to man; prophylaxis and treatment.
- CO 2: The students are familiarized with laboratory techniques including histopathology, staining techniques, culture media, sterilization and disinfection.
- CO 3: The students are equipped with the knowledge of laboratory safety rules, hazards and precautions during laboratory investigations and procedure of collection, transportation and preservation of different clinical samples.
- CO 4: The students are also acquainted with Haematology, anticoagulants (merits and demerits), Romanowsky's stains, total RBC count, erythrocyte sedimentation rate, TLC, DLC, platelet count.
- CO 5: The introduction to human defence mechanisms, serodiagnostic assays and vaccines and their use in diagnosis, treatment and prevention of occurrence of diseases.

Department of Botany

Name of the Programme: B.Sc. (Medical)

Course Outcomes

Semester- I

Paper: Diversity of Microbes

- CO 1: This course will facilitate students to understand General characters, classification and economic importance, important features and life history of various genera of Algae.
- CO 2: To facilitate students to note down different characteristics features of various classes of microorganisms under Bacteria and viruses and also give in detail regarding their life cycle and economic importance.
- CO 3: To make them familiar with different characteristics features of various classes of Mastigomycotina, Zygomycotina and Ascomycotina.
- CO 4: To put in plain words the students about different characteristics features of various classes of Basidiomycotina and Deuteromycotina.
- CO 5: To clarify the students about different characteristics features of Lichens.

Paper: I B: Diversity of Cryptogams

- CO 1: This course will aid students to understand general characters, classification and economic importance, important features and life history of Bryophyta.
- CO 2: They will be taught to general characters of different genera under class Hepaticopsida
- CO3: This course will help students to understand general characters of genera under class Anthocerotopsida and Bryopsida.
- CO 4: This course will assist them to be acquainted with General characters, classification and economic importance, important features and life history of various genera of Pteridophyta.
- CO 5: This course will facilitate students to understand general characters of various genera of Pteridophyta.

Semester -II

Paper: I A Cell Biology

- CO 1: To make them learn basic level of structural organization and function of Nucleus.
- CO 2: The students will understand extra nuclear Genome.
- CO 3: To make students well versed with Chromosome Organization
- CO 4: They will learn about various chromosome alterations.
- CO 5: This course will make students well versed with cell wall and cell membrane.

Paper: I B Genetics

- CO 1: To make them learn fine structure of DNA, the Genetic Material.
- CO 2: The students will understand Genetic regulation of Cell division.
- CO 3: To make them familiar with Regulation of Genetic expression.
- CO 4: To make them acquainted with genetic variation.
- CO 5: This course will make students well versed with DNA damage and repair structure.

Semester- III

Paper: A Structure, Development and Reproduction in Flowering Plants

- CO 1: To illuminate the students to understand diversity and branching in flowering plants.
- CO 2: This course will help students to understand the shoot system and various tissues present in it.
- CO 3: To simplify the students about the general structure of wood and their variation.
- CO 4: To explain the students about the Origin, development, arrangement and diversity in size and shape of leaf.
- CO 5: To understand the various adaptations of leaves in relation to photosynthesis.

Paper: B Structure, Development and Reproduction in Flowering Plants–II

- CO 1: They will come to learn root system in plants.
CO 2: To give explanation about vegetative reproduction and structure of flower.
CO 3: To give details to understand structure of male and female gametophyte.
CO 4: To illuminate students to understand mechanism of double fertilization and structure of seed.

Semester-IV**Paper: IV A Diversity of Seed Plants and their Systematics- I**

- CO 1: This course will help out students to know characteristics of seed plants.
CO 2: To know general features of gymnosperms and their classification.
CO3: The students will learn know geological time scale and fossilization.
CO4: This course will help students to know morphology of vegetative and reproductive parts in Pinus and Cycas.
CO5: This course will help students to know morphology of vegetative and reproductive parts in Ephedra.

Paper: IV B Diversity of Seed Plants and their Systematics–II

- CO 1: This course will assist them to be acquainted Angiosperm taxonomy.
CO 2: They will be taught different components of classification.
CO 3: They will be well versed with Botanical nomenclature.
CO 4: They will learn different classification system.
CO 5: The students will get information about Diversity of flowering plants as illustrated by members of the different families.

Semester-V**Paper: V A Plant Physiology**

- CO 1: To describe the students about Plant-Water Relation.
CO 2: To facilitate students about different steps Mineral Nutrition in plants.
CO 3: To make clear the students about Transport of Organic Substances in plants.
CO 4: To simplify the students about Photosynthesis, Photorespiration CAM process.
CO 5: To help students to know growth and development in plants.

Paper: V B Biochemistry and Biotechnology

- CO 1: They will learn basic of enzymology.
CO 2: To understand different Respiration process in plants.
CO 3: To recognize different steps in nitrogen and Lipid Metabolism.
CO 4: They will understand different aspects of genetic engineering.
CO 5: This course will help students understand basic aspects of biotechnology.

Semester–VI**Paper: VI A Ecology**

- CO 1: To familiarize students to understand Plants and different components of environment.
CO 2: To give details study about Community and population Ecology.
CO 3: This course will help students to understand different biotic and abiotic components of ecosystem.
CO 4: To give details the students about Bio geographical Regions and Vegetation types of India.
CO 5: This course will help students to understand landscape ecology.

Paper: VI B Economic Botany

- CO 1: The students will learn different food plants.
CO 2: To familiarize students to understand source of fibres and vegetable oils.
CO 3: The main objective is to understand different source of spices.
CO 4: To make them to understand importance of different medicinal plants.
CO 5: This course will help the students to understand different sources of beverages and rubber in our life.

Name of Programme: M.Sc. Botany

Course Outcomes

Semester- I

Paper: BOT C512 Fungi and Plant Pathology

CO 1: This course will assist them to be acquainted with Gymnomycota and Mastigomycota and Amastigomycota.

CO 2: To facilitate students to note down Principles and methods for the prevention and control for plant diseases.

CO 3: They will understand Symptomatology, identification, etiology and control measures of plant diseases.

CO 4: They will learn different bacterial and virus diseases.

CO 5: To endorse about sex hormones and mycorizal association in fungi.

Paper: BOT C514 Plant Physiology

CO 1: The students will learn different Plant-Water Relation and energy thermodynamics in plants.

CO 2: To facilitate students about different steps in nitrogen and sulphur metabolism in plants.

CO 3: This course will help students to know signal transduction in plants

CO 4: To make them learn different Interaction between nitrate assimilation and carbon metabolism.

CO 5: This course will help students to know Synthesis and function of glutathione.

Paper: BOT C516 Theoretical Biology

CO 1: This course will assist students to know linear, power and periodic function.

CO 2: They will learn about Exponential and Logarithmic Functions.

CO 3: To make them clear about integration and probability.

CO 4: They will be aware of Differentiation and Integration:

CO 5: This course will help students to know Statistics and ANOVA.

Paper: BOT C517 Genetics and Evolution

CO 1: To make them learn fine structure, Properties and replication of genetic material.

CO 2: The students will understand Genetic regulation of cell cycle, genetic Transposable Genetic Elements.

CO 3: To make them familiar with Regulation of Gene Expression in Prokaryotes.

CO 4: To make them acquainted about Paleontology and Evolutionary History.

CO 5: This course will help students to know Organic evolution.

Paper: BOT C518 Phycology

CO 1: They will become well versed with habitat and habit, comparative account of important system of classification (Fritsch and Lee). Organization of thallus, structure of algal cell.

CO 2: To understand comparative account of food reserves, reproductive diversity, and life history patterns in Chlorophyta and Charophyta.

CO 3: To make them learn different comparative account of food reserves, reproductive diversity, and life history patterns in Pheophyta and Rhodophyta.

CO 4: This course will help students to understand cynophyta.

CO 5: They will find out economic importance of algae.

Paper: BOTC 519 Computer Applications and Bioinformatics

CO 1: This course will update students about overview of word software.

CO 2: To streamline students to understand Worksheet and Working with Formulae.

CO 3: To give introduction to MS Power Point

CO 4: To present introduction to Bioinformatics

CO 5: To enable the students getting information about Nucleic acid and protein databases.

Paper: BOT C522 Diversity and Biology of Gymnosperms

- CO 1: This course will assist them to be acquainted with habitat and habit, structure and complexity in Gymnosperms.
- CO 2: To facilitate students to note down comparative account different orders of Gymnosperms.
- CO 3: To endorse about evolutionary tendencies in Gymnosperm.
- CO 4: They will understand pollination mechanisms in Gymnosperms.
- CO 5: To formalize students with aspect of cytology in Gymnosperms.

Semester-II

Paper: BOT C523 General Microbiology

- CO 1: This course will facilitate students to know basic methods in study of microorganism.
- CO 2: They will learn about nomenclature and classification of plant viruses.
- CO 3: To make them clear about different uses of microorganism in Environment.
- CO 4: They will be aware of different uses of microorganism in industry
- CO 5: This course will help students to recognize control of Microorganisms by physical and chemical means.

Paper: BOT C524 Cell Biology

- CO 1: To make them learn basic level of structural organization of cell.
- CO 2: The students will understand structural organization and function of Intracellular Organelles.
- CO3: To make them familiar with different organization of Genes and Chromosomes.
- CO 4: To make them acquainted about cell division and cell cycle.
- CO 5: They will learn different components of cell communication.

Paper: BOT C527 Bryology

- CO 1: This course will help students to familiar with habitat and habit, structure and complexity in Bryophytes.
- CO 2: They will know comparative account of gametophytes and sporophytes in Bryophytes.
- CO 3: To make them understand evolutionary tendencies in Evolution of gametophyte and sporogonium in liverworts and mosses.
- CO 4: They will understand different Means of spore dispersal.
- CO 5: They will learn about different characteristics of bryophytes.

Paper: BOT C 528 Pteridology

- CO 1: They will get information of different theories in origin of Pteridophytes.
- CO 2: To formalize students about general characters and classification of pteridophytes.
- CO 3: To understand comparative account of different orders of Pteridophytes.
- CO 4: They will learn about different kind of vegetative reproduction in Pteridophytes.
- CO 5: They will get information about different uses of Ferns in phytoremediation.

Paper: BOT C529 Ecological Modelling and Forest Ecology

- CO 1: To make students to understand population growth graph and factors affecting growth.
- CO 2: To make students familiar with interaction between Two Species.
- CO 3: The students will understand association analysis and community classification.
- CO 4: To understand different kind of production and energy flow in ecology.
- CO 5: They will be comprehended with different Environmental Law & Policy for protection of wild life.

Semester-III

Paper: BOT C612 Developmental Botany

- CO 1: This course will help students to understand different kind of pollination methods in angiosperms.
- CO 2: This course will aid students to understand different steps of fertilization.
- CO3: To facilitate students to understand different kind of endosperm and embryo formation.
- CO 4: To understand different aspects of Embryology & Taxonomy:

CO 5: They will be comprehended with Role of Embryology in Plant Breeding

Paper: BOT C613 Plant Molecular Biology

CO 1: The students will learn DNA and RNA structure.

CO 2: To facilitate students about different steps and tools in Recombinant DNA technology.

CO 3: This course will help students to understand different kind molecules formed with Recombinant DNA technology.

CO 4: To make them learn different Genomics and proteomics.

CO 5: They will know different Role of Recombinant DNA technology.

Paper: BOT C614 Plant Breeding and IPR

CO 1: To facilitate students about Primary and secondary centers of diversity.

CO 2: To make students to understand different breeding systems of crop species.

CO 3: They will learn different breeding methods for disease resistance crops production.

CO 4: To streamline students to understand different kinds of mutations and their role in crop production.

CO 5: They will get information of different aspects of Intellectual Property Rights: (IPR/TRIPS).

Paper: BOT C615 Plant Biochemistry

CO 1: To make them learn Plant-Cellular chemistry.

CO 2: The students will understand carbohydrates metabolism in plants.

CO 3: To make them familiar with Lipid Metabolism in plants

CO 4: To make them acquainted about Enzymology.

CO 5: They will learn different Enzyme Kinetics.

Paper: BOT C616 Applied Botany

CO 1: To facilitate students about history, source and nature of food plants.

CO 2: This course will help students to recognize different kind of forest products and their sources.

CO 3: To make them learn different industrial plant products and their sources and formation.

CO 4: They will know different types of fibre yielding plants.

CO 5: They will be comprehended with different rubbers and dye yielding plants and their formation.

Paper: BOT C617 Plant Morphogenesis

CO 1: They will become well versed with Correlation between Physiology and genetic.

CO 2: To understand symmetry and differentiation in plant tissue culture.

CO 3: This course will help students to know regeneration and different kind of tissue mixture used.

CO 4: To make them learn different types of Abnormal Growth of organs.

CO 5: They will identify different morphogenetic factors.

Semester-IV

Paper: BOT C621 Plant Anatomy

CO 1: They will learn the shoot and root system in plants.

CO 2: To give information about Nodal and Floral anatomy.

CO 3: They will be familiar with histology of wood.

CO 4: The students will gain knowledge about Functional anatomy, fruit and Seed anatomy.

CO 5: They will know different kind of Laticifers and Lenticels tissues.

Paper: BOT C622 Structure and Metabolism of Plant Hormones

CO 1: This course will help students to know the general features of Plant Hormones, their analysis, and quantitation.

CO 2: To enable them getting information of Auxins and Gibberlins.

CO 3: To endorse them to know Cytokinins, Ethylene and Abscicic acid.

CO 4: To formalize students about Jasmonates and other Defense-Related Compounds.

CO 5: They will get information of Microbial Synthesis of Plant Hormones.

Paper: BOT C623 Plant Tissue Culture and Biotechnology

- CO 1: To make students well versed with the Cytogenetics and differentiation in cell and tissue culture.
- CO 2: This course will help out them to understand Somaclonal variations and artificial seeds production.
- CO 3: To abridge about techniques for the production of transgenic plants.
- CO 4: This course will help students to know about cell culture and secondary metabolites production.
- CO 5: To make clear the about techniques used in Cryobiology of plant cell cultures.

Paper: BOT C624 Analytical Techniques

- CO 1: To aware them about principles and application of different analytical techniques.
- CO 2: To make them well knowledgeable with principles and applications of gel filtration.
- CO 3: This course will help students conversant with techniques for principles of biophysical methods used for analysis of bio polymeric structure.
- CO 4: To make students to be acquainted with principles and techniques of nucleic acid hybridization.
- CO 5: To enable them getting information about different spectroscopy techniques.

Paper: BOT C626 Diversity and Biology of Angiosperms

- CO 1: This course will assist them to be acquainted with the historical perspective of plant classification.
- CO 2: To facilitate students to note down principles of plant nomenclature and different classification system.
- CO 3: To endorse about principles of plant taxonomy and different relation between taxonomy approaches.
- CO 4: The course will enable to be familiar with different Taxonomic tools
- CO 5: To formalize students to know different concepts of phytogeography and different phytogeography regions of the world and India.

Paper: BOT C724 Hazardous Chemicals (Optional Paper)

- CO 1: This course will update students about the physical properties of different chemicals and their target organs.
- CO 2: To streamline students to understand Combustible and Explosive properties of chemicals
- CO 3: This course will help out students to know different chemicals.
- CO 4: To assist students knowing about different Pesticides.
- CO 5: To enable the students getting information about different Herbicides.

Paper: BOT C725 Immunology (Optional Paper)

- CO 1: This course will facilitate students to know about the Immune System.
- CO 2: The course will allow students to recognize Antigens and Antigen Recognition.
- CO 3: To make them clear about different Antibodies and their properties.
- CO 4: They will learn about different cells and tissues of Immunity.
- CO 5: The students will learn about different immune system in health & disease.

Department of Bio-Informatics

Name of the Programme: B.Sc. (Bio-Informatics)

Course Outcomes

Semester-I

Paper: A Fundamentals of Computers, Molecular Biology & r-DNA technology

The paper will help the students in understanding:

- CO 1: Students will be familiar with the working of computers and different operating systems
- CO 2: Students will be able to prepare documents with proper formatting
- CO 3: Students will be capable to share their ideas in form of a power point presentation
- CO 4: Students will learn about Data entry, analysis and visualization using Excel
- CO 5: Learners will know how to connect computers with other computers, internet, Wi-Fi

- CO 6: Students will get an idea to design a webpage
CO 7: Students will get familiar with various biomolecules including DNA, RNA, Proteins and their structure.
CO 8: The students will understand the molecular journey from DNA to Proteins
CO 9: Students will be aware of various steps of r-DNA technology

Semester-II

Paper: Basic Mathematics, Biostatistics, DBMS

- CO 1: Basic knowledge will be imparted about mathematical functions including trigonometric, differential etc.
CO 2: Students will know to represent multi-dimensional data using matrices and will be able to apply different operations on matrices
CO 3: Student will get an idea to create a database

Semester-III

Paper: Introduction to Biological Databases

- CO 1: Students will be sensitized about diversity and complexity of biological data
CO 2: Students will get an idea about size of biological data
CO 3: Learners will be familiar with biological databases
CO 4: Knowledge will be given about various data formats to store molecular data

Semester-IV

Paper: Computer Programming in C++ and Perl

- CO 1: Students will develop logical thinking and programming
CO 2: Students will be able to write programs to analyze biological data
CO 3: Students will get acquainted with various Bioperl objects and their application

Semester-V

Paper: Computational Methods for Sequence Analysis

- CO 1: Students will know how to compare DNA/Protein sequences
CO 2: Students will learn basics of statistics and machine learning techniques
CO 3: Students will be trained to predict secondary structure of proteins
CO 4: Students will be aware of various methods of protein classification

Semester-VI

Paper: Structural Biology and Molecular Modeling

- CO 1: Students will know the basic concepts of molecular modeling
CO 2: Students will be able to represent chemical information on computers
CO 3: Knowledge will be given to use computers to study molecular interactions (e.g. Drug-Target interaction)
CO 4: Students will be aware of the process of drug design & development
CO5: Students will further know about computer aided drug design

Name of Programme: M. Sc. Bioinformatics

Course Outcomes

Semester-I

Paper: BI-511 Basic Concepts in Biology

- CO 1: Different types of living cells and biomolecules will be introduced to the students
CO 2: Overview of cellular metabolism will be given to students
CO 3: Students will get aware of different components of immune system

Paper: BI-512 Database Management and Data Mining

- CO 1: Students will be skilled to create databases

CO 2: Learners will be aware of various methods for storing, retrieving manipulation of data

CO 3: Students will know Different ways to search data from databases

Paper: BI-514 Computer Fundamentals, Networking, Web Technology and Basics of C Programming Language

CO 1: Students will acquire knowledge of MS Word, PowerPoint and Excel

CO 2: Students will be able to prepare PowerPoint presentation

CO 3: Students will learn about data entry, analysis and visualization using Excel

CO 4: Students will acquire skills of connecting computers with other computers, Internet, Wi-Fi

CO 5: Students will be familiar with fundamentals of Webpage designing

Paper: BI-515 Introduction to Bioinformatics and Biological Databases

CO 1: Students will know basic concepts of Bioinformatics

CO 2: Students will understand diversity and complexity of biological data

CO 3: Students will be aware of various databases to store specific biological information

CO 4: Students will be familiar with different formats to store biological data

Paper: BI-516 Practicals Based on Database Management and Computer Fundamentals Web Technology and Basics of C Programming Language

CO 1: Students will be able to Develop databases related to biological data

CO 2: Working of Computers and Different Operating Systems will be demonstrated to students

CO 3: Students will know fundamentals of preparing documents, formatting, printing etc.

CO 4: Students will be able to prepare PowerPoint presentation

CO 5: Students will learn about data entry, analysis and visualization using Excel

CO 6: Students will be introduced to logical thinking and programming

Paper: BI- 517 Practical's Based on Biological Databases

CO 1: Students will get acquainted with different formats of biological data to store data

CO 2: Students will be gain ability to explore data for different types of research work

CO 3: Students will know the tricks to access specific sequence and structural data from various biological databases

CO 4: Students will be confident to search and install a variety of Open Source tools to analyze biological data

Semester-II

Paper: BI-521 Concepts in Molecular Biology & r-DNA Technology

CO 1: Students will understand the processes of replication, transcription & translation in molecular biology

CO 2: Students will get familiar with the concept of molecular cloning

CO 3: Students will be familiar with various cloning vectors and enzymes for manipulating DNA

Paper: BI-522 Programming in C++ and Visual Basic

CO 1: Learners will be introduced to logical thinking and its implementation in writing computer programs

CO 2: Students will be able to write programs to analyze biological data

CO 3: Design various types of forms and applications

Paper: BI-523 Basic Mathematics

CO 1: Students will gain basic knowledge of mathematical functions including trigonometric, differential

CO 2: Students will be confident in dealing with multi-dimensional data using matrices, different operations on matrices

CO 3: Students will be familiar with Integration, Differentiation

Paper: BI-524 Computational Methods for Sequence Analysis

- CO 1: Students will be made aware about the analysis of various types of biological data
- CO 2: Students will be familiar with various software and databases used in analysis of data
- CO 3: Learners will be able to predict the structure of proteins
- CO 4: Students will be able to use various methods of phylogenetic analysis and their applications

Paper: BI-525 Structural Biology and Bioinformatics

- CO 1: Students will be well aware of the detailed structure of DNA, Proteins and other biomolecules.
- CO 2: Learners will know about various aspects of protein structure classification
- CO 3: Students will be aware of the principle and methods used for modelling 2D and 3D structure of proteins

Paper: BI-526 Practical's Based on Advance Programming in C++ and Visual Basic

- CO 1: Knowledge of C++ programming basics
- CO 2: Learners will know about control structures and logical thinking
- CO 3: They will understand concept of objects, classes, inheritance etc.
- CO 4: They will be able to design forms and in Visual Basic
- CO 5: Communicating with databases using Visual Basic

Paper: BI-527 Practical's Based on Structural Biology and Bioinformatics

- CO 1: Students will be able to perform protein-protein, protein-ligand docking
- CO 2: Students will be skilled in modeling 3D structure of proteins
- CO 3: Students will be able to draw and visualise biomolecules and other chemicals
- CO 3: Students will be able to analyze 3D structure of proteins including Energy Minimization, Molecular Dynamics simulation

Semester-III

Paper: BI-631 Genomics and Proteomics

- CO 1: Knowledge of Genomics and proteomics data of various plants and organisms will be imparted to the learners
- CO 2: Students will know various techniques to sequence the genome and proteome of various organisms
- CO 3: Student will be familiar with the techniques for analysis of genomics and proteomics data

Paper: BI-632 Advanced Algorithms for Computational Biology

- CO 1: Students will know about the concept of computer algorithms
- CO 2: Awareness will be created among students about various algorithms including divide and rule, genetic algorithms, machine learning
- CO3: Students will be able to apply these algorithms to analyze biological data

Paper: BI-633 System Biology and Metabolic Pathway Engg.

- CO 1: Students will know about modeling cellular networks
- CO 2: Students will understand protein-protein interactions and various methods to model them
- CO 3: Students will be made aware of various metabolic pathways
- CO 4: Students will be acquainted with different protein-protein interaction and pathway databases

Paper: BI-634 Molecular Modeling and Computer Aided Drug Design

- CO 1: Students will learn the basic concepts of molecular modeling
- CO 2: Students will learn about representing chemical information on computers and concept of force field
- CO 3: Students will know about the concept and methods of energy minimization
- CO 4: Process of drug design & development will be demonstrated to the students
- CO 5: Students will learn about the use computers to study molecular interactions (e.g. Drug-Target interaction)

Paper: BI-635 Programming in PERL for Bioinformatics

CO 1: Students will know the importance of PERL in handling biological data

CO 2: Students will be able to read large data sets from files

CO 3: Learners will be familiar with pattern matching using regular expression functions

CO 4: Learners will be sensitized towards the techniques of analyzing sequence data using PERL programming

CO 5: Parsing of data with specific examples will be demonstrated to students to make them aware of the concept of parsing

CO 6: Bioperl objects and utilities will be made familiar to the students

Paper: BI-636 Practical's Based on System Biology and Metabolic Pathway Engineering and Molecular Modeling and Computer Aided Drug Designs

CO 1: Learners will be able to perform Molecular Docking

CO 2: Learners will be able to perform Molecular Dynamics Simulations

CO 3: Students will be skilled to constructing protein-protein interaction networks

CO 4: Students will be efficient in searching metabolic pathway databases

Paper: Practical's based on Genomics and Proteomics and Programming in PERL for Bioinformatics

CO 1: Learners will be able to write and run PERL programs

CO 2: Students will get acquainted with various control statements

CO 3: Students will be able to write programs for analysis of biological data

CO 4: Students will be able to analyze genomic and proteomic data

Seminar on Emerging Trends in Bioinformatics

CO 1: Students will be updated with latest research trends

CO 2: Students will learn to present their ideas in form of a PowerPoint presentation

Paper: Industrial / Institutional Visit

CO 1: Students will get opportunity to interact with scientists working on different aspects of Bioinformatics

Semester-IV

Paper: BI-640 Major Research Project

CO 1: Students will learn how to decide a research area

CO 2: Students will be able to formulate and design a research problem

CO 3: Student will know to analyze and interpret results

Department of Biotechnology

Name of Programme: B.Sc. Biotechnology

Course outcomes

Semester-I

Paper: BT-8 General Microbiology-A

CO 1: The students will be acquainted with the basic concept of Microbiology and its relevance in daily life.

CO 2: Learners will be able to understand the basic techniques in Microbiology such as bright field, darkfield, phase contrast, fluorescence & immunofluorescence and electron microscopy.

CO 3: The students will learn about the general features of different microorganisms like bacteria, viruses, fungi etc.

CO 4: Students will be able to understand the various biochemical and metabolic characteristics of microorganism.

CO 5: Students will learn the different methods of bacterial classification.

Paper: BT-9Biochemistry A

- CO 1: The students will learn the basic concepts of biochemistry and its role in plant and animal life.
- CO 2: Further, they will be able to understand the importance of bio molecules such as carbohydrates in daily life.
- CO 3: Students will be able to learn various procedures for determining sugars, carbohydrates, etc in various samples.
- CO 4: Awareness will be created among students to study the importance of water in life.

Paper: BT-5Computer & Bioinformatics Fundamentals

- CO 1: The learners will be acquainted with the basic concept of computers and Ms-Office: word, Excel, Power-point
- CO 2: Students will explore various Databases at NCBI, EMBL, DDBJ.
- CO 3: Students will be able to understand the GenBank Format, FASTA format etc
- CO 4: Students will learn the various sequence alignment tools in bioinformatics.

Semester-II

Paper: BT-8General Microbiology-B

- CO 1: The students will learn about the process of microbial growth.
- CO 2: Students will be acquainted with the various methods used for cultivation of different bacteria and life cycle of various plant and animal viruses.
- CO 3: The learners will be able to understand the various diseases and their mechanism caused by microorganisms.
- CO4: Students will learn about the different characteristics and mechanism of various fungal diseases, their mechanism of action and diagnosis.

Paper: BT-9Biochemistry- B

- CO 1: Students will be educated about the importance of proteins and peptides; their types and chemistry.
- CO 2: Students will be acquainted about basic types of lipids: their types and study various properties of lipids and waxes.
- CO 3: Students will be provided with knowledge to understand the different types of vitamins and their role in human health and their IU recommended doses and deficiency diseases associated with vitamins.
- CO 4: The students will be made aware about how to perform various tests for detection of proteins, lipids etc.

Semester-III

Paper: BT-3Biochemistry – III

- CO 1: The learners will understand the basic concept of metabolism.
- CO 2: Students will learn about the various metabolic pathways of carbohydrate metabolism and their regulation.
- CO 3: Students will be able to understand the concept of electron transport chain and oxidative phosphorylation.
- CO 4: Students will learn and perform different processes used for the Separation of lipids using various chromatography techniques.

Paper: BT-7 Agro and Industrial Applications of Microbes-A

- CO 1: Students will learn about the basic concept of agro industrial microbiology.
- CO 2: Students will be able to learn about the different approaches used for genetic manipulations of microorganisms.
- CO 3: Students will be able to identify various industrial important microbes, its isolation, screening, selection and identification.

CO 4: Students will understand the concept of Microbial association and their interaction with plants and role of microbes in sustainable agriculture.

Paper: BT-4Cell biology –A

CO 1: Students will learn about the unit concept of life that is cell and its biology.

CO 2: The students will be made aware of the basic cell organelle such as golgi complex mitochondria nucleus etc

CO 3: Awareness will be created among students about the microscopic structure of cell organelles and basic concepts of dichotomy.

CO 4: The students will be made aware of various methods of cell division I.e. mitosis and meiosis.

Paper:BT-6Genetics

CO 1: Students will be able to understand the concept of chromosomes and their structure.

CO 2: Learners will be able to study the Mendel's Laws of Inheritance and interaction of genes.

CO 3: Students will also learn about the concept and significance of Linkage and crossing over.

CO4 : Awareness will be created among students to learn about basic microbial genetics.

Paper: BT-5Basic concepts in Immunology – A

CO 1: Students will explore the study of Immune system.

CO 2: The learners will be acquainted with the various cells and organs of immune system.

CO3: The students will learn the concept of immunogenicity along with action of various immunoglobulins.

CO 4: The students will get detailed knowledge about MHC molecule along with cell receptors

Semester-IV

Paper: BT-3Biochemistry – IV

CO 1: Students will understand the metabolic pathways of lipid catabolism and its regulation.

CO 2: Students will be able to learn about the concept of lipid anabolism.

CO 3: Students will understand various metabolic pathways of amino acid metabolism along with its regulation.

CO 4: Students will understand the detailed concept of nucleic acid metabolism.

Paper: BT-5Immunotechnology

CO 1: The students will study the concept of T-cell subsets and surface markers along with the concept of monoclonal antibodies.

CO 2: The students will become aware about various immunological techniques like Immunodiffusion, ELISA, RIA..

CO 3: The students will be able to understand immunopathological consequences of parasitic infections, immune invasion and how to protect our immune system from such pathogenic infections.

CO 4: Learners will be able to understand the concept of immunization and recombinant Vaccines and latest discoveries related to recombinant vaccines.

Paper code: BT- 6 Molecular Biology

CO 1: The students will learn the Molecular basis of life: DNA and its replication.

CO 2: The learners will be able to understand the concept of DNA recombination molecular mechanisms.

CO 3: Students will learn the Process of transcription and translation in organisms.

Paper: BT- 8 Enzymology

CO 1: Detailed knowledge will be imparted to the students regarding the nomenclature, classification and characteristics of enzymes.

CO 2: Concept clearance will be provided about the mechanism of enzyme action and functional group identification at active site.

CO3: They will be provided knowledge about enzyme kinetics.

CO 4: Students will be able to learn enzyme inhibition, effect of pH and temperature on rate of enzyme action.

Paper: BT-7 Agro and Industrial Applications of Microbes-B

CO 1: Students will learn about the general characteristics of industrial and agro industrial microbes and microbes involved in antibiotics production.

CO 2: Students will learn about the various mechanisms involved in the production of different microbial products like wine, beer etc.

CO 3: Students will be provided the knowledge related to microbial process in agro biotechnology like BT crops etc

CO 4: Students will be able to learn about the different microbial process in industrial biotechnology.

Paper: BT-4 Cell biology –B

CO 1: Students will be made aware about the different cell organelles like SER,RER etc.

CO 2: The students will be made aware about the basic functions of the cell organelle .

CO 3: Awareness will be created among students about the cell division and its mechanism.

CO 4: The learners will be able to study various methods of cell differentiation .

Semester - V

Paper: BT-5 Bioprocess Engineering- A

CO 1: Students will learn about the fundamental principle of bioprocess engineering and different types of microbial cultures.

CO 2: The learners will be acquainted with the various mechanisms of microbial growth kinetics.

CO3: The students will learn the process of external and internal feed basic system of various microbial creatures.

CO 4: Students will provide the knowledge related to the importance of sterilization in bioprocess Engineering.

Paper: BT-3 Animal Tissue Culture

CO 1: The students will be made aware of the basic concepts of animal biotechnology, animal cell culturing.

CO 2: Awareness will be created among students regarding various cell lines and their characteristics.

CO 3: Students will be able to perform isolation of DNA and RNA from animal tissues and to analyze the DNA by electrophoresis and spectrophotometrically.

CO 4: The students will be made aware about how to analyze the various types of stem cells and their role in differentiation and organ culturing.

Paper: BT-1 rDNA Technology-A

CO 1: Concept clearance about the molecular techniques like isolation of DNA from bacteria and then analysing it by using restriction enzymes and spectroscopy will be provided to the students.

CO 2: The students will be made aware of various types of vectors such as lambda, plasmid etc.

CO 3: They will be able to learn various techniques used for transformation like electron gun, micro injection etc

CO 4: Students will also explore various types of DNA sequencing techniques used in modern era.

Paper: BT-4 Patent Laws in Biotechnology

CO 1: Conceptual knowledge will be enhanced regarding the Indian patent system, its history, further amendments objectives and along with patenting agencies will be enlisted.

CO 2: Students will be able to understand the format of the writing the patent and its specifications. Further, added guidelines include patentee rights, post grant opposition, infringement, etc.

CO3: Students will be acquainted regarding the patenting system in biotechnology and articles related to it.

CO4: Awareness will be created about the risks associated with the release of genetically modified microorganisms, ethical issues in biotechnology, ecological impact and legal aspects of patenting.

Paper: BT-6 Biophysical and Biochemical techniques –A

CO 1: The students will learn about centrifugation in detail which includes its principle, theory, types and application.

CO 2: The students will be acquainted with chromatographic technique; its principle, types and application.

CO3: The learner will be provided knowledge regarding the advanced chromatography techniques like HPLC, GLC.

CO4: Detailed knowledge will be provided about spectroscopy, and instrumentation of NMR and ESR will be taught.

Semester-VI

Paper: BT-5 Bioprocess Engineering-B

CO 1: The students will be acquainted with the various features of different bioreactors and its kinetics.

CO 2: The students will learn about the various control and measurement equipment of bioreactors.

CO 3: The students will learn about the basic concept of down streaming processing.

CO 4: Students will be able to understand the various methods of ETP and fermentation economics.

Paper: BT-3 Animal Biotechnology

CO 1: The students will be made aware of the various types of cell lines and their characteristics.

CO 2: Students will learn the various types of methods for cell transformation.

CO 3: The students will be able to understand the concept of PCR and types of PCR. Further, they will get to know regarding animal genetic engineering and production of various types of animal products.

CO 4: The students will be further made to learn isolation of RNA from blood, southern blotting etc.

Paper: BT-6 Biophysical and Biochemical techniques –B

CO 1: The students will be provided the knowledge of mass spectroscopy, MALDI TOF and MALDI Q, its application and further fluorescence microscopy will be discussed.

CO 2: Knowledge of students will be enhanced regarding electrophoresis, its types, principle, theory and applications

CO3: The students will be provided knowledge regarding 2D gel and capillary electrophoresis and its applications.

CO4: The learners will be taught the radio isotopic techniques which includes concept of radioisotopy, theory and safety rules for radio isotopic studies.

Paper: BT-4 Intellectual Property Rights and Entrepreneurship

CO 1: The students will be imparted the knowledge of IPR; its history, benefits, problems and management.

CO 2: Students will be provided knowledge regarding World Trade Organization, its principle, objective, structure, functions and its related provisions, GATT.

CO3: Learners will be acquainted with TRIMs, TRIPs; its agreement, principle and objective, Berne convention, Budapest Treaty, WIPO.

CO4: The students will be given the knowledge regarding entrepreneurship; its characteristics.

Paper: BT-1 rDNA Technology-B

- CO 1: Awareness will be created among students about study of various types of vectors and their characteristics (BAC, YAC, TAC).
- CO 2: The students will be made aware about the concept of genomic cloning and various types of lambda vectors used for the same.
- CO 3: Students will be able to learn about various types of sequencing methods such as max Gilbert method, Sanger's method.
- CO4 - Students will be able to learn the preparation of competent cells and transform the same and learn gel electrophoresis etc.

Department of Multi-Media

Name of the Programme: Bachelor of Design (Multimedia)

Course Outcomes

Semester-I

Paper: Drawing & Colour-I

Students will learn about:

- CO 1: concept of Color (Water, Postal and Oil)
- CO 2: view Point (2D Views and 3D Views)
- CO 3: basic knowledge of drawing concept
- CO 4: Color Wheel, Tint Shade etc.

Paper: Introduction to 3D-I

Students will learn about:

- CO 1: concept of 3D
- CO 2: basic of 3D Modeling
- CO 3: introduction of MAYA software
- CO 4: Nubs, Supline and Polygon Modeling

Paper: Workshop-I

Students will learn about:

- CO 1: practical with clay modeling, POP, Thermo coal, oil and acrylic colors.
- CO 2: create art with waste materials.

Paper: Elements of Art and Multimedia

Students will learn about:

- CO 1: art and its elements.
- CO 2: various elements: point, line, content, form, texture, color.
- CO 3: what is multimedia.
- CO 4: elements of multimedia.
- CO 5: applications of multimedia.

Semester-II:

Paper: Drawing & Colour-II

Students will be able to:

- CO 1: study human skeleton, figure (Male and Female).
- CO 2: Understand lighting and shading.
- CO 3: get knowledge about sketches with brush, pen and ink.
- CO 4: know the various color schemes.

Paper: Introduction to 3D-II

Students will learn about:

- CO 1: lighting and texturing.

CO 2: 3D animation process.

Paper: Theory of Media (Print Media & Scriptwriting)

Students will learn about:

CO 1: print media.

CO 2: types of modern printing process.

CO 3: types of Advertisements.

CO 4: concepts of Script Writing.

Paper: Workshop–II (Photography & Adobe Lightroom)

Students will learn about:

CO 1: working of Cameras.

CO 2: basics of photography.

CO 3: use of Adobe light room.

CO 4: developing pictures.

Paper: Adobe Illustrator * (Software)

Students will learn about:

CO 1: creating vector graphics.

CO 2: interface of illustrator.

CO 3: production with illustrator.

Semester-III:

Paper: Film Appreciation–I

Students will learn about:

CO 1: introduction to films.

CO 2: introduction to indian cinema.

CO 3: history of indian cinema.

CO 4: types of films.

Paper: Animation in 3D

Students will learn about:

CO 1: principles of animation.

CO 2: character modelling.

CO 3: rigging.

CO 4: rendering.

Paper: Adobe Photoshop

Students will learn about:

CO 1: raster graphics.

CO 2: principles and elements of graphic.

CO 3: working of bitmap graphics.

CO 4: use of all tools in photoshop.

Paper: HTML 5

Students will learn about:

CO 1: understanding web pages.

CO 2: basic HTML structures and tags.

CO 3: understanding CSS 3.

CO 4: developing web pages with style sheets.

Paper: Corel Draw

Students will learn about:

CO 1: working with vector graphics.

CO 2: use of tools in CorelDraw.

CO 3: creating advertisements, pamphlets, posters, calendar etc.

Paper: Project–I

Students will learn about:

CO 1: creating Project with use of HTML, CSS, CorelDraw, Photoshop and MAYA Software.

Semester-IV

Paper: Flash

Students will learn about:

CO 1: animation fundamentals.

CO 2: 2D animation process.

CO 3: character designing.

CO 4: use of action script.

CO 5: animation project.

Paper: PHP

Students will learn:

CO 1: introduction of PHP.

CO 2: web forms.

CO 3: database connectivity.

CO 4: redirecting web pages.

Paper: Dream Weaver

Students will learn:

CO 1: introduction to dream weaver.

CO 2: website management.

CO 3: development of interactive web pages.

CO 4: website project.

Paper: Film Appreciation–II

Students will learn about:

CO 1: production processes

CO 2: film making

CO 3: understanding film censorship

Paper: Project– II

Students will learn about:

CO 1: creating project with use of Dreamweaver, PHP, Flash and character designing.

Semester-V

Paper: Adobe Premiere Pro

Students will learn about:

CO 1: introduction to video editing.

CO 2: video capturing.

CO 3: working with audio.

CO 4: video project.

Paper: Adobe After Effects

Students will learn:

CO 1: introduction to after effects.

CO 2: working with video effects.

CO 3: creating visual effects and motion graphics.

Paper: Workshop–III

Students will learn about:

CO 1: pre-production, production and post-production.

CO 2: working with camera and lenses.

CO 3: recording.

Paper: Sound Editing and Recording

Students will learn about:

CO 1: working with audio.

CO 2: audio editing with SoundForge or Stienberg Cu-Base.

Paper: Technical Theory of Media – II (Electronic Media)

Students will learn about:

CO 1: working of radio, TV, print and electronic media.

Paper: Project–III

Students will learn about:

CO 1: creating project with use of SoundForge, After Effects and Premier Pro.

Semester-VI

Paper: 3D Studio Max

Students will learn about:

CO 1: introduction of 3D Max.

CO 2: 3D Modeling in Max.

CO 3: Texturing, Lighting, Rigging, Animation and Rendering.

CO 4: 3D Project.

Paper: Introduction to 3D

Students will learn about:

CO 1: principles of animation.

CO 2: 3D Formations.

CO 3: Techniques in 3D.

CO 4: Theory of 3D Concepts.

Paper: Drawing & Illustration

Students will learn about:

CO 1: illustrations.

CO 2: shading.

CO 3: prospective (2 Point and 3 Point).

Paper: Workshop–IV: (Stop Motion)

Students will learn about:

CO 1: camera capturing techniques.

CO 2: frame by frame shooting.

CO 3: Render

Paper: Blender

Students will learn about:

CO 1: introduction to Blender

CO 2: 3D Modeling with Blender

CO 3: project in Blender

Paper: Project – IV

CO 1: Students will learn about creating project with use of Blender, Stop Motion and 3D Studio Max

Semester-VII

Paper: Maya

CO 1: Students will learn about 3D Project in Maya Software

Paper: Mudbox

CO 1: Students will learn about 3D Sculpturing

Paper: Project–V

CO 1: Students will learn about creating project with use of Maya Software and Mudbox

Semester-VIII

Paper: 3D and Animation in Photoshop

Students will learn about:

CO 1: creating 3D with Photoshop.

CO 2: Third Party Plugins for Graphics.

Paper: Motion Graphics for Commercials

CO 1: Students will learn about theory of Commercials and Motion Graphics

Paper: 3D Human Modelling and Animation

Students will learn about:

CO 1: Character Modeling

CO 2: Rotoscoping

CO 3: 3D Walk Cycle

Paper: Training

CO 1: Students will learn about Professional Training of Minimum 10 – 12 weeks on above Learned Technologies

Name of the Programme: B.Voc (Web Technology & Multimedia)

Course Outcomes

Semester-I

Paper: 101 Computer fundamentals and MS Office

Students will learn about:

CO 1: introduction to computer.

CO 2: internet fundamentals.

CO 3: components of Multimedia

CO 4: MS Office

Paper: 102 Markup Languages (HTML, HTML5, and CSS)

Students will learn about:

CO 1: introduction to web pages.

CO 2: creation of web pages with tags.

CO 3: style sheets.

Paper: 103 Programming Fundamentals (C & C++)

Students will learn about:

CO 1: fundamentals of program development.

CO 2: introduction to C and C++

CO 3: object oriented programming concepts.

Paper: 104 Adobe Photoshop

Students will learn about:

CO 1: introduction to Photoshop Tools.

CO 2: understanding Bitmap Graphics.

CO 3: creating graphics with Photoshop.

Semester-II

Paper: 107 Web Programming with PHP-I

Students will learn about:

CO 1: introduction to PHP.

- CO 2: web forms.
- CO 3: database connectivity.
- CO 4: redirecting web pages.

Paper: 108 Design & Layout (Dreamweaver)

Students will learn about:

- CO 1: introduction to Dream Weaver.
- CO 2: website management.
- CO 3: development of interactive web pages.
- CO 4: website project.

Paper: 109 Analysis and Design for Web Applications

Students will learn about:

- CO 1: introduction to System Development Principals.
- CO 2: business principals.
- CO 3: system analyst.
- CO 4: ecommerce business.

Paper: 110 Java Script-I

Students will learn about:

- CO 1: introduction to Java Script.
- CO 2: logic development with scripts.
- CO 3: redirecting and Alert Boxes.

Semester-III

Paper: 301 Java Script II

Students will learn about:

- CO 1: advanced JavaScript concepts.
- CO 2: logic development with scripts.
- CO 3: redirecting and Alert Boxes.

Paper: 302 Operating System

Students will learn about:

- CO 1: introduction to Operating System.
- CO 2: working of Operating System.
- CO 3: paging and segmentation.
- CO 4: DOS commands.

Paper: 303 Java Programming

Students will learn about:

- CO 1: introduction to Java.
- CO 2: object oriented programming with Java.
- CO 3: exceptional handling.

Paper: 304 Word press

Students will learn about:

- CO 1: introduction to wordpress.
- CO 2: creating posts and pages.
- CO 3: Content Management.
- CO 4: security and blogging.

Semester-IV

Paper: 401 Database System

Students will learn about:

- CO 1: introduction to Databases.

- CO 2: data Models.
- CO 3: queries.
- CO 4: SQL and SQL security.

Paper: 402 Software Engineering

Students will learn about:

- CO 1: introduction to Software Engineering.
- CO 2: software designing and testing.
- CO 3: software requirement specification concepts.

Paper: 403 PHP-II

Students will learn about:

- CO 1: developing logics with PHP.
- CO 2: advanced web forms.
- CO 3: database connectivity.
- CO 4: database redirecting.

Paper: 404 Adobe Flash

Students will learn about:

- CO 1: animation fundamentals.
- CO 2: 2D Animation
- CO 3: character designing.
- CO 4: use of action script.
- CO 5: animation project.

Semester-V

Paper: 501 Software Re-engineering

Students will learn about:

- CO 1: introduction to Soft Re-Engineering.
- CO 2: Reverse Engineering.
- CO 3: Refactoring and Reuse of Software.

Paper: 502 Software Project Management and Business Solution

Students will learn about:

- CO 1: introduction to Software Project Management.
- CO 2: project evaluation and planning.
- CO 3: control and monitoring.
- CO 4: business solutions.

Paper: 503 ASP.net with C#

Students will learn about:

- CO 1: ASP .Net Basics.
- CO 2: validation control.
- CO 3: list and view controls.
- CO 4: database connectivity.

Paper: 504 Software Testing & Quality Assurance

Students will learn about:

- CO 1: introduction to software testing.
- CO 2: quality assurance concepts.
- CO 3: OOps testing concepts.
- CO 4: testing processes.

Paper: 505 Lab: Software Testing (Case Tools)

Students will learn about:

CO 1: introduction to software development diagrams.

CO 2: development of DFDs and ER diagrams.

Paper: 506 Adobe Muse

Students will learn about:

CO 1: introduction to Adobe Muse.

CO 2: designing website without coding.

CO 3: planning, designing and publishing of website.

Semester-VI

Paper: 601 Major Project (Industrial Training and Project in Current software Technologies)

Students will learn about project development for 6 months using the above learned technologies.

Name of the Programme: M.Voc. (Web Technology and Multimedia)

Course outcomes

Semester-I

Paper: 701 Advanced Graphic Designing

Students will learn about:

CO 1: introduction to graphics.

CO 2: advance concept of designing.

CO 3: designing of pamphlets, brochures etc.

Paper: 702 Image Capturing & Processing

Students will learn about:

CO 1: camera angles, lenses.

CO 2: pre and post processing of images captured.

CO 3: adding light and effects.

Paper: 703 2D Animation & Character Design

Students will learn about:

CO 1: character designing.

CO 2: animation with 2D models.

CO 3: walk cycle of 2D models.

Paper:-704 Scripting Language –1

Students will learn about:

CO 1: introduction to script.

CO 2: basics of Redirecting and Logic Developments.

CO 3: web forms.

Paper: 705 Digital Media Production

Students will learn about:

CO 1: media production laws.

CO 2: principles of digital production.

CO 3: pre and post production concepts.

Semester-II

Paper:- 801 Video Editing Techniques

Students will learn about:

CO 1: introduction to video editing.

CO 2: introduction to timeline, title and audios.

CO 3: video Advertisements, montage, short films assignment

Paper: 802 Visual Effects

Students will learn about:

- CO 1: introduction to after effects.
- CO 2: visual effects description.
- CO 3: paint effects.
- CO 4: conversion of 2D to 3D images.

Paper: 803 Stop Motion

Students will learn about:

- CO 1: camera capturing techniques.
- CO 2: frame by frame shooting.
- CO 3: Render

Paper: 804 Scripting Language – 2

Students will learn about:

- CO 1: concepts of Arrays.
- CO 2: Cookies and Sessions.
- CO 3: Errors and Debugging.

Paper: 805 Digital Media Laws and Ethics

Students will learn about:

- CO 1: legal concepts of video production.
- CO 2: cyber laws.
- CO 3: media ethics and issues.

Semester-III**Paper: 901 3d Modeling & Texturing**

Students will learn about:

- CO 1: concept of 3D.
- CO 2: Primitives and Splines of 3D.
- CO 3: Polygon Modeling.
- CO 4: Mapping Coordinates.

Paper: 902 Lighting & Rendering

Students will learn about:

- CO 1: concept of lighting.
- CO 2: 3 point lightining.
- CO 3: Rendering Effects.

Paper: 903 Motion Graphics

Students will learn about:

- CO 1: 2D slideshow and 3D layer animation.
- CO 2: Rotoscoping and Tracking of Footage.
- CO 3: Third Party Plugins.

Paper: 904 Asp. Net

Students will learn about:

- CO 1: ASP .Net Basics
- CO 2: C# Controls
- CO 3: validation control.
- CO 4: list and view controls.
- CO 5: database connectivity.

Paper: 905 Workplace Health and Safety

Students will learn about:

CO 1: importance of health and safety at workplace.

CO 2: fire safety in the workplace.

CO 3: government norms and regulations.

Semester-IV:

Paper: 1001 Advanced 3d Modeling& Texturing

Students will learn about:

CO 1: introduction to Maya.

CO 2: 3D human modelling.

CO 3: character modelling.

CO 4: Rotoscoping.

CO 5: 3D walk cycle

Paper: 1002 Digital Painting

Students will learn about:

CO 1: painting and blending techniques.

CO 2: Rotoscoping

CO 3: wire removal techniques.

Paper:1003DigitalPortfolio

CO 1: Students will learn about development of video resume using the above learned techniques

Paper: 1004 Internship

CO 1: Students will learn about internship in one of the above technologies form a reputed company

Department of Fashion Designing

Name of Programme: B.Sc. Fashion Designing

Course Outcomes

Semester –I

Paper I: Basic of Design and Illustration

CO 1: Students will able to understand design fundamental, elements & principles of design.

CO 2: Students will able to sketch figure and drawing.

CO 3: Students will learn Fashion Design concepts and colour theories.

Paper II: Concept of Fashion

CO 1: To identify and discuss concepts related to the historical background of fashion

CO 2: To assess, purpose and apply various techniques related to drafting, draping.

Paper III: Basics of Sewing-I

CO 1: Students will able to construct various sleeves e.g. Puff, raglan, kimono etc.

CO 2: Students will able to make Yokes with fullness and without fullness

CO 3: Students will able to understand Construction of collars – Flat and rolled, peterpan collar

Paper IV: Basics of Computers

CO 1: Students will able to understand the basics knowledge of computers.

CO 2: Students will learn the difference between an operating system and an application program.

Paper V: Fiber to Fabric

CO 1: Students will able to learn and identify different types of Fibres and yarns.

CO 2: Students will Perform Microscopic appearance, burning test and solubility test on different fibres to know the fabric type.

Semester-II

Paper I: Traditional Textiles

CO 1: Students will able to differentiate & learn types of carpets, coloured woven & printed textiles of India.

CO 2: To learn various effects, texture and basics of art and design world.

Paper II: Fabric Construction

CO 1: Students will learn various techniques of weaving, knitting, felting & bonding.

CO 2: Students will also learn different types of decorative fabric construction techniques.

Paper IV: Basics of Computers

CO 1: Students will be able to understand the Professional presentation formations, different views of PowerPoint & animation effects.

CO 2: Student will learn about basic Concepts of PowerPoint, CorelDraw & Photoshop.

Semester-III

Paper I: Fashion Design and Illustration

CO 1: Student will learn the process to work from concept to finished products, including knowledge of paints, surfaces, two dimensional and three dimensional images.

CO 2: Students will learn the various design details and their use in fashion/textile

CO 3: Students will be able to gain knowledge of figure sketching & drawing.

Paper II: Colour Concepts & Coloration

CO 1: Students will gain knowledge of colour&colour schemes.

CO 2: Students will learn about different types of printing & dyeing techniques on fabrics.

Paper III: Pattern Making & Garment Construction

CO 1: Ability to make commercial paper patterns & make style reading sheets.

CO 2: Students will able to make – Salwar suit, blouse, Petticoat.

Paper IV: Needle Craft

CO 1: It enables the students to learn methods of surface ornamentation on fabric using different techniques to produce value added products.

CO 2: Students will learn to develop practical skills in needle craft techniques

Paper V: Knitting Technology

CO 1: To describe types, characteristics & structure of knitted products

CO 2: Students will gain the knowledge of knitted garments.

Semester- IV

Paper I: Fashion Design and Illustration (CAD)

CO 1: Students will learn fashion design concept on computer.

CO 2: Students will gain working knowledge of Corel draw software and will acquires hands on knowledge on details and croquies on computer.

Paper II: History of Costumes

CO 1: Students will learn to Sketch costumes for men and women – Indus valley civilization, British period,mauryan, Mughal period etc.

CO 2: Students will have knowledge of historic period

Paper III: Garment Construction & Draping

CO 1: Students will learn concept of advance pattern making and different garment construction techniques.

CO 2: Commercial pattern making techniques helps students to work with industry.

Paper IV: Fashion Illustration & Appreciation

CO 1: Student will learn to design theme based project.

CO 2: Students will learn how to select theme and to design theme based collection on any type of theme.

Paper V: Pattern and Marker Making on Computer

CO 1: This course aids in learning of patterns and layouts according to body measurements.

CO 2: Students will able to learn skills of marker plan, pattern making & drawing using computers.

Semester-V

Paper I: Fashion Illustration and Appreciation

- CO 1: The highly effective and superior study program brings in opportunity to improve creative skills by collage making on different theme based collections.
- CO 2: Students will illustrate garments by taking inspiration from historical period, monuments, traditional fabric, embroideries and many more themes.

Paper II: Draping, Pattern Making and Construction

- CO 1: Students will able to drape stylized skirts, necklines, bodice & torso.
- CO 2: Concept of draping and stitching will be utilized in making of garments for clients.

Paper III: CAD (Computer Aided Design)

- CO 1: Software helps the students to explore the design world, as maximum work is done on software in design world.
- CO 2: Software will help students to learn the process of creating technical drawing with the use of computer aided designing.

Paper IV: Internship for Design and Construction of Garments

- CO 1: Designers often work closely with garment technologists and sample machinists. The role could also involve liaising with manufacturers (often based overseas) to make sure designs are reproduced accurately.
- CO 2: Students will able to learn industrial working methods.
- CO 3: It is important for students to interpret how management plays an important role in every field.

Paper V: Leather Technology

- CO 1: Students will learn about Packaging of product –importance and various material used for packaging.
- CO 2: To gain the knowledge of leather manufacturing process.

Semester-VI

Paper I: Fashion Illustration and Appreciation

- CO 1: It provides framework for students to understand the basic concept of illustration.
- CO 2: It helps students to use different types of color medium in illustration.

Paper II: Pattern Making and Construction

- CO 1: This course helps students to incorporate different types of female garments according to theme based pattern.

Paper III: Computer Aided Design

- CO 1: Students will able to understand the basic concepts and designing on corel draw & Adobe Photoshop.

Paper IV: Survey and Project Report

- CO 1: Ability to develop a style that is distinctive consistent & new ability to manage the process of emerging designs through creativity and preparing graduates to work with fashion industry.
- CO 2: After completion of the project students will be able to work on different types of field project.

Paper V: Fashion industry, Marketing and Management

- CO 1: After studying this course the students should be able to apply various marketing & management aspects to their projects and understand marketing techniques to run any business effectively.
- CO 2: Students will gain the knowledge of Career & job roles in fashion industry.
- CO 3: Students will learn how management plays an important role in every field of fashion.

Name of Programme: B.Voc Fashion Technology

Course Outcomes

Semester-I

Paper IV: Sewing Techniques-I

CO 1: Students will be able to learn the basic sampling of plackets, pockets, darts, seams and hand stitches etc.

Paper V: Fashion Art & Design Development

CO 1: It helps students adopt a better understanding of the people around them and learn to build stronger relationships.

CO 2: Learning the Design and illustration fosters creativity of the student.

CO 3: Design is inherently creative.

Paper VI: Pattern Making & Construction-I

CO 1: Student will be able to make patterns and do garment construction of the following: Basic block, child panty, bloomer, party wear frock, jump suit

CO 2: Student will be able to make patterns and layouts according to body measurement of kids and produce the final apparel product accordingly.

Paper VII: CAD-I

CO 1: Students will learn about basics of designing on computer.

CO 2: Student work on design projects which help in increased productivity and efficiency of work with the help of CorelDraw.

Paper VIII: Concept of Fashion & Textiles-I.

CO 1: Students will understand & basic concepts of fashion and textiles.

CO 2: Students will learn about various technical aspects of printing and finishing of textile products in the industry.

Semester- II

Paper IV: Sewing Techniques-II

CO 1: Students will learn to make samples of sleeves, yokes and collars.

CO 2: Students will learn to implement above learnt techniques through drafting, layout and construction of gathered frock.

Paper V: Fashion Illustration & Design Development Skill

CO 1: Students will learn different types of prints and textures related to kids wear.

CO 2: Students will learn about figure drawings of kids and babies.

Paper VI: Portfolio Development (Kids)

CO 1: Students will be able to communicate effectively with customers to design their garments as per their requirements as well as according to the latest trend.

CO 2: Students will learn theme based collection including specification sheet, mood board, story board and many more.

Paper VII: CAD-II

CO 1: Students will be able to understand the basic Concepts of Corel Draw & their tools.

CO 2: Students will learn to design & render fashion details.

Paper VIII: Concept of Fashion & Textiles-II

CO 1: Student will learn about concepts related to fashion and textiles.

CO 2: This course will impart knowledge about decorative way of constructing fabrics.

Semester-V

Paper III: Computer Aided Designing (CAD)-II

CO 1: Students will learn to design various fashion details by using CorelDraw and Adobe Photoshop.

Paper IV: Garment Construction and Care Skill

CO 1: After studying this course the students will understand aesthetics in dress with suitable selection of clothes and planning of wardrobe.

CO 2: To be able to learn care and storage of garment and hence plan the wardrobe.

Paper V: Portfolio Skill

CO 1: Learn about developing the designs whatever is planned or thought, an implementation to the thinking is given.

CO 2: Various design techniques & styles are explored.

Paper VI: Fashion Industry, Marketing and Management

CO 1: After studying this course the student should be able to define about various marketing aspects of his/her designer products

CO 2: It will be impart the practical knowledge of fashion market, environment, planning, research, concept of exhibition and fashion shoe.

CO 3: The students will be able to learn the concept of retailing.

Semester-VI

Paper III: Computer Aided Designing (CAD)-III

CO 1: CAD allows for the easier development of products It also allows for greater modeling and even provides a basis for virtual networking. In the designing world, CAD is extremely important and widely used to design and develop products to be used by consumers.

CO 2: After studying this course the students will be able to design outfits for casual wear, sportswear, office wear, nightwear, party wear and ethnic wear.

Paper IV: Pattern making and Garment Construction-II

CO 1: Students will learn to make Patterns and stitch garments like skirts and bifurcated garments.

Paper V: Quality Control

CO 1: Students learn about quality and its assurance parameters.

CO 2: Students learn about various fabric defects and garment inspection techniques.

CO 3: The courses help the students to understanding packaging and its importance.

Paper VI: Fashion Merchandising

CO 1: Students will able to understand the knowledge of different sectors of garment industry including sampling, designing, production & marketing.

CO 2: To impart the knowledge of trend prediction, colour& sales forecasting.

Name of Programme: M.Sc.(Fashion Designing & Merchandising)

Course Outcomes

Semester-I

Paper I: Fashion Illustration

CO 1: After studying this course students will get knowledge & skills to understand fashion illustration concepts and techniques.

CO 2: To learn illustration techniques for various garment details

Paper II: Product Development Workshop

CO 1: Students will able to construct different types of garments for kids.

CO 2: Students will learn developing the designs planned or thought & an implementation to the thinking is given by drafting of different designs.

Paper III: Pattern Making and Grading

CO 1: Students will be able to make sleeve and adult bodice block with metric system

CO 2: Various design technique and styles are explored in drafting of different types of collars, sleeves, skirts. Contoured pattern, dart manipulation & grading.

CO 3: Students learn techniques of up grading and down grading

Paper IV: Computer Aided Fashion Designing

CO 1: This course leads to success in education & employment as computer skills are integral to all areas of study. The students will gain knowledge of Adobe Illustrator and Adobe Photoshop in detail.

CO 2: Students will also learn to design fashion details, accessories, figure drawing of male, female and kids on computers.

CO 3: Knowledge of draping simulation on adobe Photoshop is also gained.

Paper V: History of Indian Costumes

CO 1: Ability to learn art of historical costumes of men and women during Indus valley civilization, British period, Mauryan, Mughals and traditional costumes of India.

CO 2: Students will gain knowledge of– Headgears, footwear, handbags, belts, gloves, earrings, necklaces and bangles which will further helps them in designing

Semester-II

Paper I: Fashion Illustration

CO 1: It will help students to adopt better understanding of basic block figures- Male and female.

CO 2: Students will learn various effects, texture and basics of art and design world to foster creativity of the students.

Paper II: Product Development- Workshop

CO 1: Students will able to apply the knowledge of design process in making collection of female wear.

Paper III: Pattern Development & Draping

CO 1: Students will understand the draping aspects of pattern making.

CO 2: It provides technical knowledge of draping in developing patterns and designing via draping.

Paper IV: Computer Aided Fashion Designing

CO 1: To enables student to learn pattern making and grading software (Rich piece).

CO 2: Student will work on design projects which help to increase productivity and efficiency of work

CO 3: Student learns about the process of creating technical drawing with the use of software.

Paper V: Fashion Merchandising and Marketing

CO 1: Students will able to understand role & responsibility of Fashion Merchandiser.

CO 2: The students learn about material availability in market, fashion forecast , upcoming trends and demands of the consumers.

Paper VI: Traditional Indian Embroideries

CO 1: To beautify garments with embroidery, painting and other decorative materials

CO 2: To know and select appropriate fabric suited to the design of the garment with special reference to colour, texture and design of fabric by visit to any textile museum, craft cluster/craft area.

CO 3: This course will help student to understand documentation of the selected craft.

Semester-III

Paper I: Product Development- Workshop

- CO 1: Students will be able to construct different types of male garment.
- CO 2: This course help students to incorporate drafting casual, traditional, street and formal wear for male garments.

Paper II: Advance Draping

- CO 1: Students will be able to apply the knowledge of draping in developing patterns and designs by different designs.
- CO 2: The concept of contouring used in draping to make off shoulder and padded evening gowns will also be taught by which students will be able to understand handling fitting problems in designing.

Paper III: Computer Aided Fashion Designing

- CO 1: Students will be able to understand designing through use of Adobe Illustrator &Photoshop and hence create fashion & design illustrations.

Paper IV: Surface Ornamentation

- CO 1: Students will learn to beautify garments with embroidery, printing, crochet, macramé and other decorative materials
- CO 2: Students will be able to incorporate the above in their apparels.

Paper V: Global Costumes

- CO 1: To impart knowledge of costumes related to men and women like Babylonian costumes, Persian, Egyptian, Greek, Roman period etc.
- CO 2: To gain knowledge of– Headgears, footwear, handbags, belts, gloves, earrings, necklaces and bangles use globally and hence help in deigning according to the world’s culture.

Paper VI: Seminar-Indian Traditional Textiles

- CO 1: The students will gain knowledge about the traditional textiles of India.
- CO 2: Students will be able to apply traditional fabrics of different states of India with emphasis on texture, design and colour to any design of their choice.

Semester-IV

Paper I: Portfolio Development

- CO 1: Portfolio development is the important part of designing to expose to students to real work like situation and improve male, female and kids garments with various boards, specs, cost sheets and garment collection.

Paper II: Product Development- Workshop

- CO 1: Students will be able to construct different types of kid, male or female garments.
- CO 2: Students will be able to apply the knowledge of design process in making a collection

Paper III: Fashion Merchandising and Retailing

- CO 1: Students will be able to learn knowledge about retail organizational structure store.
- CO 2: Students will learn the role of Customer identification, customer, planning and role of buyer.

Paper IV: Textile Chemistry

- CO 1: Students will be able to learn and identify different types of Fibres
- CO 2: Students will learn to Perform Microscopic appearance, burning test and solubility test for different fibres to know the fabric type.

Paper V: Project Report/Design Project

- CO 1: This course helps the students in improving the knowledge and versatility of students and help them in boosting their career by designing through research.
- CO 2: It involves application of learned skills in designing to the major project report.

Name of Programme: PG Diploma in Garment Construction & Fashion Designing

Course Outcomes

Semester –I

Paper I: Pattern Making

- CO 1: Students will be able to get knowledge of Different aspects of pattern making.
- CO 2: Students will able to make Commercial paper patterns of various designs.

Paper II: Fashion Illustration

- CO 1: Students will able to understand: Figure sketching.
- CO 2: Illustration techniques for various garment details.

Paper III: Garment Designing

- CO 1: The students will learn process to work on patterns for various basic deigns, encompasses the development of pattern making skills, fashion details and illustration techniques in designing various outfits.

Paper IV: Garment Construction

- CO 1: Students will learn pattern making and stitching of skirts, kurti and kalidarkurta and pyjama for ladies garments.
- CO 2: With the help of Commercial pattern making the students will be able to work with industry.

Paper V: Fashion Concepts

- CO 1: To understand, analyse and apply principles and elements of design with respect to textile garments
- CO 2: Students will understand relation between design development and colour importance.

Paper VI: Workshop - Surface Ornamentation

- CO 1: To enable the students to beautify garments by imparting practical skills in needle craft, embroidery, painting and other decorative materials
- CO 2: Students will learn to demonstrate and understand how an art form expresses the culture that produced it.

Paper VII: CAD in Fashion

- CO 1: To enables students learn, methods of surface ornamentation of fabric using different techniques to produce value added products
- CO 2: To impart knowledge about CorelDraw and photo paint.
- CO 3: Students will gain CAD based application in fashion designing

Semester- II

Paper I: Pattern Making

- CO 1: To impart knowledge about different aspects of pattern making, dart manipulation, draping & commercial pattern making techniques.

Paper II: Fashion Illustration

- CO 1: To enables students to understand: Figure sketching.
- CO 2: Illustration techniques for various garment details.

Paper III: Garment Designing

- CO 1: Students will able to understand: Fashion details and designing various outfits, illustration techniques and fashion design concepts.

Paper IV: Garment Construction

- CO 1: Students will be able to learn various construction techniques in apparel designing
- CO 2: Students will be able to apply above learnt techniques in garment construction.

Paper V: Fundamentals Of Textiles

- CO 1: To identify and discuss concepts related to the traditional fabrics of different states of India.
- CO 2: To assess, importance of textiles in fashion designing.

Paper VI: Workshop - Surface Ornamentation

CO 1: Students will learn methods of surface ornamentation of fabric to produce value added products.

CO 2: To enable the students to develop practical skills in needle craft and printing.

Paper VII: CAD In Fashion

CO 1: Students will get operating knowledge of Corel draw and photo paint.

CO 2: To learn CAD based application in fashion designing.

HEM