Janata Shikshan Mandal's

DEVCHAND COLLEGE, ARJUNNAGAR

PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES

PROGRAMME OUTCOMES (POs)

Programme Outcomes- M.Sc.	
After the completion of two year post-graduation programme, students will be able to acquire the following attributes.	
PO 1	**Domain Knowledge**- Acquire advanced knowledge of principles, theories, scientific models, methods and standards in the disciplines of their study.
PO 2	**Application**- Able to use scientific knowledge and tools deriving from domain knowledge.
PO 3	**Problem Analysis**- Able to identify, formulate and analyze complex problems and find out working solutions using scientific knowledge and tools.
PO 4	**Project Management**- Able to handle individual and/or group projects/ tasks and use critical thinking, problem solving and research-related skills.
PO 5	**Individual and Team work**- Able to function effectively as an individual and as a member in diverse teams and in multidisciplinary settings.
PO 6	**Communication Skills**- Able to communicate effectively with the surrounding people and society at large and write reports, documents and make effective presentations as and when required.
PO 7	**Social Awareness**- Able to demonstrate social values through acts of social commitment, display professional ethics and responsibilities showing appropriate consideration for public health, safety and welfare.
PO 8	**Environment and Sustainability**- Able to understand the impact of scientific solutions for environmental issues and adopt sustainability as a practice in life.
PO 9	**Ethics and Human Values**- Able to acquire human values and integrity of character and display moral behaviour.
PO 10	**Life-long Learning**- Able to recognize the need for and have the ability to engage in an independent and life-long learning in the context of drastic technological changes.

Programme Outcomes- B.Sc.	
After the completion of three year graduation, students will be able to acquire the following attributes.	
PO 1	**Domain Knowledge**- Acquire knowledge of fundamentals, proper scientific models, basic scientific principles and methods.
PO 2	**Application**- Able to apply fundamentals, techniques, skills and tools of sciences in new contexts.
PO 3	**Analysis**- Able to analyse problems scientifically and find solutions.
PO 4	**Project Management**- Able to undertake projects/task, plan and implement effectively .
PO 5	**Individual and Team Work**- Able to work both as an individual and together with people of different socio-cultural backgrounds.
PO 6	**Communication Skills**- Able to use proper communication skills for successful interaction in personal and public life.

PO 7	**Social Awareness**- Able to undertake activities informed by social values (such as social equity), social issues and cultural diversity.
PO 8	**Environment and sustainability**- Develop consciousness to preserve the earth's finite resources and to balance human needs and the environment.
PO 9	**Ethics and Human Values**- Apply ethical principles and appreciate the importance of ethical practices in professional work and uphold human dignity.
PO 10	**Lifelong Learning**- Able to acquire emerging knowledge and skills and adapt to the changing needs of the times.

Programme Outcomes- M.Com.	
After the completion of two year post-graduation programme, students will be able to acquire the following attributes.	
PO1	**Domain Knowledge**- Acquire advanced knowledge of principles, theories, standards in commerce and management.
PO2	**Application**- Able to use skills of auditing, costing, management and commerce.
PO3	**Analysis**- Able to use various costing tools for decision making.
PO4	**Individual and Team work**- Learn proper individual and group behavior for the smooth working of the organization, motivation, leadership and team building and Japanese management.
PO5	**Communication Skills**- Use communication skills as a leader for eliciting voluntary support from subordinates and for establishing harmonious relationships, conflict resolution, concise and coherent communication.
PO6	**Project Management**- Able to plan and implement tasks independently (report writing, cost and benefit analysis, profit analysis).
PO7	**Social Awareness**- Understand and use sense of corporate social responsibility and areas of expenditure e.g. education, poverty eradication, gender equality, donations to social and health causes (e.g. AIDS).
PO8	**Environment and sustainability**- Develop sense of responsibility towards use of raw materials, eco-friendly products, environmentally safe distribution and marketing, undertake sustainable processes, practices and methods in business
PO9	**Ethics and Human Values**- Exhibit human values (honesty, fairness and integrity) in all kinds of interaction with stakeholders and ethical behavior in the organization.
PO10	**Lifelong Learning**- **A**ble to update and adapt to new practices like e-commerce and m-commerce.

Programme Outcomes- B.Com.	
After the completion of three year degree programme, students will be able to acquire the following attributes.	
PO1	**Domain Knowledge**: Acquire knowledge of concepts, principles, theories, laws and modern management practices in commerce.
PO2	**Application**: Able to utilize skills of auditing, costing, entrepreneurship, management and undertake lawful practices.
PO3	**Analysis:** Able to use various statistical tools to analyze and interpret data and find solutions and recommend the same to target groups.
PO4	**Individual and Team work** in the organization, conflict resolution for the success of organization (to increase and maintain quality, low cost of production, efficiency, productivity and consumer satisfaction)

PO5	**Communication Skills-** Acquire communication skills for establishing harmonious relationships, for conflict resolution, concise and coherent communication, write mails, facilitate meetings, prepare business reports and project presentations.
PO6	**Project Management-** Business planning, organizing, directing, controlling reporting and budgeting, etc.
PO7	**Social Awareness-** Understand and use sense of corporate social responsibility and areas of expenditure e.g. education, poverty eradication, gender equality, donations to social and health causes (e.g. AIDS)
PO8	**Environment and Sustainability-** Responsibility towards use of raw materials, eco- friendly products, environmentally safe distribution and marketing, undertake sustainable processes , practices and methods in business
PO9	**Ethics and Human Values -** Ethical behavior in the organization in favour of stakeholders (customers, shareholders, employees and society at large)
PO10	**Lifelong Learning-** Continuous scanning of business environment for business growth and practice the knowledge acquired.

Programme Outcomes- M.A.

After the completion of two year post-graduation programme, students will be able to acquire the following attributes.

PO 1	**Domain Knowledge-** Able to acquire knowledge of the disciplines concerned (Economics, Sociology, History, English and Marathi).
PO 2	**Application-** Able to acquire and utilize skills acquired from domain knowledge.
PO 3	**Analysis-** Able to develop critical and creative thinking.
PO 4	**Individual and Team work-** Able to feel accountable, accomodative and committed to team/organization.
PO 5	**Communication Skills-** Able to communicate effectively in oral and written mode.
PO 6	**Problem Solving-** Able to identify, analyse and find solutions to real life problems.
PO 7	**Social Awareness-** Able to understand social challenges, contemporary issues (political, social, economic, linguistic and cultural) and appreciate diversity in the world.
PO 8	**Environment and Sustainability-** Able to undertake environmentally sustainable practices and minimize threat to ecological balance.
PO 9	**Ethics and Human Values-** Able to follow ethical principles and display a sense of human values (truth, honesty, integrity, etc.)
PO 10	**Lifelong Learning-** Develop the urge to engage in the process of learning beneficial to self and society.

Programme Outcomes- B.A.

After the completion of three year graduation, students will be able to acquire the following attributes.

PO 1	**Domain Knowledge-** Acquire knowledge of fundamentals, proper scientific models, basic scientific principles and methods.
PO 2	**Application-** Able to apply fundamentals, techniques, skills and tools of sciences in new contexts.
PO 3	**Analysis-** Able to analyse problems scientifically and find solutions.

PO 4	**Skill Development-** Able to use skills acquired during the programme in real life.
PO 5	**Individual and Team work-** Able to use appropriate individual and group behaviourin real life situation.
PO 6	**Communication Skills-** Effective speaking, active listening, giving and receiving feedback, empathy and respect for others.
PO 7	**Social Awareness-** Able to understand and interact with people belonging to diverse backgrounds (social, cultural, economic, religious and linguistic) and use culture-specific norms.
PO 8	**Environment and Sustainability-** Able to use natual and community resources with a sense of responsibility and engage in environmentally sustainable practices.
PO 9	**Ethics and Human Values:** Able to practice ethics in public life and demonstrate adherence to human values.
PO 10	**Life-long learning-** Motivation to learn and use new and beneficial things for personal and societal benefit.

SCIENCE

M.Sc. Agrochemicals and Pest Management (AgPM)

Programme Specific Outcomes

After the completion of the two year postgraduate programme in Agrochemicals and Pest Management, students will be able to -----.	
PSO 1	**Learn about chemical pesticides and botanical pesticides, pesticide structure, chemical names and physical and chemical properties.**
PSO 2	**Gain knowledge about soil formation, soil profile, soil properties and composition.**
PSO 3	**Understand general characteristics, morphology and physiology of insect pests, plant virus and viral diseases, disease management and control.**
PSO 4	**Acquire knowledge of production of pesticides, marketing and planning.**
PSO 5	**Understand the concept of ecology and interrelationship among different components.**

M.Sc. Agrochemicals and Pest Management (AgPM)

Course Outcomes

M.Sc.I Semester-I

Paper I- Chemistry of Pesticides and Their Formulations - I

At the end of the course, students will be able to ------	
CO 1	Understand chemical pesticides and botanical pesticides.
CO 2	Learn pesticide structure, chemical names and physical and chemical properties.
CO 3	Acquire knowledge of pesticide formulations.
CO 4	Acquire skill of using different devices which are used in pesticide application.
CO 5	Get knowledge about recent advances in pest control.

Paper II Soil science, Fertilizers and Micronutrients

At the end of the course, students will be able to ------	
CO 1	Get knowledge about soil formation, soil profile, soil properties and composition.
CO 2	Learn about nitrogenous fertilizers and phosphate fertilizers.
CO 3	Understand micronutrients, their properties, uses and deficiency.

CO 4	Know uses of plant growth regulators and hormones.

Paper III Introductory and Industrial Entomology

At the end of the course, students will be able to ------	
CO 1	Understand general characteristics, morphology and physiology of insect pests.
CO 2	Learn about pests, economic threshold level and economic injury level.
CO 3	Know about general life cycle pattern of insect pests.
CO 4	Gain knowledge of sericulture and apiculture.

Paper IV Basic Concepts in Plant Pathology

At the end of the course, students will be able to ------	
CO 1	Understand plant pathology, plant disease, pathogen and disease diagnosis.
CO 2	Know about general characters and structure of plant virus and viral diseases.
CO 3	Learn about general characters of bacteria and bacterial diseases.
CO 4	Gain knowledge about fungi.
CO 5	Learn about diseases of pulses, oil seed crops and cash crops.

M.Sc. I Semester-II

Paper V-Chemistry of Pesticide and Their Formulation-II

At the end of the course, students will be able to ------	
CO 1	Learn methods of synthesis, mode of action and structure of carbonate and inorganic pesticide.
CO 2	Get knowledge of synthetic pyrethroids and other natural pesticide.
CO 3	Understand important parameters of pesticide formulation.
CO 4	Learn application of controlled release formulation.
CO 5	Become skilled in the use of different methods of seed treatment.

Paper VI-Analytical Technique for Agrochemicals

At the end of the course, students will be able to ------	
CO 1	Learn principles of separation techniques and their applications.
CO 2	Train for acid base titration, redox titration, etc.
CO 3	Understand working and applications of potentiometry, PHmetry and electrical conductivity.
CO 4	Know application of flame photometry and atomic absorption spectroscopy.

Paper VII- Economic Entomology

At the end of the course, students will be able to ------	
CO 1	Understand household stored grain and medicinal plant pest and their management.
CO 2	Get knowledge about livestock and forest pest.
CO 3	Learn about polyhouse and greenhouse technology.
CO 4	Understand ecology and interrelationship among different components.

Paper VIII- Biotechnological Aspects of Plant Protection

At the end of the course, students will be able to ------	
CO 1	Get information about agronomy of crop plans.
CO 2	Learn seed technology.
CO 3	Acquire knowledge of physical, chemical, and biological methods of weed control.
CO 4	Understand diseases of cereals, millets and fiber crops and their management.

M.Sc. II Semester- III

Paper- IX- Pesticide Residues and Toxicology

At the end of the course, students will be able to ------

CO 1	Learn about pesticide residues in the atmosphere, water and soil system.
CO 2	Get knowledge about extra-microsomal metabolism of insecticides and selectivity concepts
CO 3	Learn pesticide residue penetration and distribution.
CO 4	Acquire special techniques, sample preparation and pesticide residue analysis methods.

Paper X-Pests of Crop Plants and Their Control-I

At the end of the course, students will be able to ------	
CO 1	Learn about pests of cereal and millets.
CO 2	Know pests of pulses & sugarcane.
CO 3	Get knowledge of pests of oil-seeds & forage crops.
CO 4	Learn applied entomology, pest management, bio-efficacy of some pesticides against major pests and recent advances in pest control: Green Chemistry in pesticides

Paper XI- Analysis of Agrochemicals

At the end of the course, students will be able to ------	
CO 1	Learn separation techniques: principles, instrumentation and application of gas.
CO 2	Understand chromatography (GC) and HPLC.
CO 3	Know about pest's radioactivity, polarography, fluorescence spectroscopy.
CO 4	Gain knowledge of ultraviolet spectroscopy.

Paper XII- Diseases of Vegetables, Fruit Trees, Plantation Trees, Forest Trees and Ornamental Plants

At the end of the course, students will be able to ------	
CO 1	Learn about diseases of vegetables (fungal, bacterial and viral, their symptoms, life cycle and control measures).
CO 2	Learn about diseases of fruit trees.
CO 3	Learn about forest and plantation tree diseases.
CO 4	Learn about diseases of ornamental plants.

M.Sc. II Semester-IV

Paper –XIII Agro-based Marketing Management

At the end of the course, students will be able to ------	
CO 1	Understand the concepts of marketing, different marketing processes and planning.
CO 2	Get knowledge about Indian marketing environment.
CO 3	Learn marketing ethics.
CO 4	Know agricultural import and export processes and international marketing.

CO5	Undertake agriculture project analysis.

Paper XIV- Pest of Crop Plants and Their Control-II

At the end of the course, students will be able to ------	
CO 1	Know the mechanism of bio-control of pests.
CO 2	Get knowledge of plantation crop pests.
CO 3	Acquire knowledge of pests of spices and condiments.
CO 4	Learn pests of vegetables, pests of fruit and fruit trees and their control.

Paper-XV Manufacture of Agrochemicals

At the end of the course, students will be able to ------	
CO 1	Get knowledge about unit operations.
CO 2	Understand principles of quality control in research and development.
CO 3	Learn pesticide designing and synthesis of pesticides.
CO 4	Acquire knowledge of manufacture of pesticides and other agrochemicals.
CO5	Understand occupational health hazards and their control.

Paper XVI- Agriculture Biotechnology and Integrated Disease Management

At the end of the course, students will be able to ------	
CO 1	Understand concepts of tissue culture.
CO 2	Get knowledge of genetic engineering and transgenic plants.
CO 3	Learn about genetics of resistance.
CO 4	Understand methods of integrated disease management.

B.Sc. Botany

Programme Specific Outcomes

After the completion of the three year programme in the subject of Botany, students will be able to-----	
PSO 1	**Learn about different groups of plants and understand anatomical and reproductive growth in plants.**
PSO 2	**Familiarize with different methods used in the study of plants and understand metabolism in plants, and their role in plant productivity.**

PSO 3	**Understand correlation between plants and environment and gain knowledge about application of plants in daily use.**
PSO 4	**Acquire knowledge of different technology and their application in agriculture.**

B.Sc. Botany

Course Outcomes

B.Sc. I Sem. I

Paper I- Diversity of Microbes, Algae and Fungi

At the end of the course, students will be able to ------.	
CO1	Understand different groups of organisms.
CO2	Learn the morphology and reproduction in lower organisms.
CO3	Learn use of lower organisms in daily life.
CO4	Develop skills in the methods of the study of lower organisms.

Paper II- Biodiversity of Archegoniate- Bryophytes, Pteridophytes and Gymnosperms

At the end of the course, students will be able to ------.	
CO 1	Know general characteristics and classification of bryophytes.
CO 2	Understand lifecycle of archegoniate.
CO 3	Gain information about diversity and distribution of archegoniate.
CO 4	Understand the role of archegoniate in ecosystem.

B.Sc. I Sem. II

Paper III- Plant Ecology

At the end of the course, students will be able to ------.	
CO 1	Understand various concepts of ecology.
CO 2	Differentiate the role of abiotic and biotic factors in ecology.
CO 3	Gain knowledge of the process of plant succession.
CO 4	Know working mechanism of ecosystem and interaction between living and non-living things.

Paper IV- Plant Taxonomy

At the end of the course, students will be able to ------.	
CO 1	Understand the concept of taxonomy and plant nomenclature.
CO 2	Acquire knowledge of ICNB and herbarium techniques.
CO 3	Gain information about botanical gardens and their importance.
CO 4	Get training in plant classification.

B.Sc. II Sem. III

Paper V- Embryology of Angiosperms

At the end of the course, students will be able to ------.	
CO 1	Understand reproductive structure in plants and also the process of pollination.
CO 2	Learn the process of gametogenesis in plants.
CO 3	Know the pathway of embryo and endosperm development.
CO 4	Learn different modes of embryo development and their role in plant propagation.

Paper VI- Molecular Plant physiology

At the end of the course, students will be able to ------.	
CO 1	Learn the process of water and plant relation.
CO 2	Understand plant nutrients and their role in plants.
CO 3	Acquire knowledge of plant growth process and different types of plant growth regulators and their practical use.
CO 4	Know the process of photosynthesis and its use in agriculture.

B.Sc. II, Sem. IV

Paper VII- Plant anatomy

At the end of the course, students will be able to ------.	
CO1	Understand anatomical structures in plants.
CO2	Learn methods of anatomical study of plants.
CO3	Know anatomical growth and abnormality in plants.
CO4	Gather knowledge of tissue system and their role in plants.

Paper VIII- Plant Metabolism

At the end of the course, students will be able to ------.	
CO1	Learn different metabolic pathways in plants.
CO2	Get knowledge about enzymes and its mechanism of action.
CO3	Understand mechanism of respiration in plants.
CO4	Know about the process of seed germination and its use in agriculture.

B.Sc. III, Sem. V

Paper IX- DSC –E25 Genetics and Plant Breeding

At the end of the course, students will be able to ------.	
CO1	Understand basic terminologies in genetics and principles of inheritance.
CO2	Know the significance, types, definitions of linkage, crossing over and mutation.
CO3	Get knowledge and be well versed with Chromosome structure and variation.
CO4	Acquire knowledge of aims, objectives and methods of plant breeding.

Paper X- DSC –E26 Microbiology, Plant Pathology and Mushroom Culture Technology

At the end of the course, students will be able to ------.	
CO1	Know different microorganisms and preparation of culture media.
CO2	Get knowledge about industrial production of antibiotics and organic acids.
CO3	Get training in plant disease identification and its management.
CO4	Gain information about mushroom cultivation technology.

Paper XI- DSC –E27 Cytology and Research Techniques in Biology

At the end of the course, students will be able to ------.	
CO1	Understand cell theories and cell divisions.
CO2	Learn the structure of different cell organelles.
CO3	Know cell membranes and sub-cellular structures.
CO4	Get training in biological research techniques.

Paper XII- DSC –E28 Horticulture and Gardening

At the end of the course, students will be able to ------.	
CO1	Know the importance and divisions of horticulture.
CO2	Learn cultivation of flowers and pest management.
CO3	Get training in propagation practices.
CO4	Get training in gardening.

B.Sc. III Sem. VI

Paper XIII- DSC –F25 Plant Biochemistry and Molecular Biology

At the end of the course, students will be able to ------.	
CO1	Understand the properties and classification of carbohydrates.
CO2	Learn the significance, structure and classification of lipids.
CO3	Get information about biosynthesis of amino acids and structure of protein.
CO4	Understand types and models of nucleic acids.

Paper XIV- DSC –F26 Bioinformatics, Biostatistics and Economic Botany

At the end of the course, students will be able to ------.	
CO1	Understand the scope, branches, concepts and application of bioinformatics.
CO2	Know collection and presentation of data.
CO3	Learn the origin, names and morphology of different plants.
CO4	Get economic information of spices, beverages and fibres.

Paper XV- DSC –F27 Plant Biotechnology and Palaeobotany

At the end of the course, students will be able to ------.	
CO 1	Understand the history, scope and importance of biotechnology.

CO 2	Collect information about recombinant DNA technology.
CO 3	Get training in plant tissue culture techniques.
CO 4	Learn about fossils types, fossilization process and application of paleobotany.

Paper XVI- DSC –F28 Biofertilizers, Herbal Drug Technology

	At the end of the course, students will be able to ------.
CO 1	Understand the types, importance of biofertilizers and organic manure.
CO 2	Know herbal medicines, classification and preparation process.
CO 3	Get training in the preparation of herbal cosmetics.
CO 4	Become aware of fertilizers and herbal drug technology

B.Sc.III Botany 2016-17 to 2019-20

Paper IX- Biology of Non-Vascular Plants and Palaeobotany

At the end of the course, students will be able to ------.	
CO 1	Understand occurrence, distribution, classification and characteristics of algae..
CO 2	Learn different examples of fungi, their vegetative and reproductive features.
CO 3	Collect information of fossils types, fossilization process and application of paleobotany.
CO 4	They can get knowledge about life cycle of Bryophytes.

Paper X- Genetics and Analytical Techniques in Plant Science

At the end of the course, students will be able to ------.	
CO 1	They can get knowledge about Sex Chromosomes, Determination and Population Genetics.
CO 2	They can get information of extra-chromosomal Inheritance
CO 3	Understanding the variation in chromosome number and structure and mutation.
CO 4	Train in analytical techniques in Plant Sciences.

Paper XI- Fundamentals of Plant Physiology and Ecology

At the end of the course, students will be able to ------.	
CO 1	Understand the mineral nutrition and nitrogen metabolism in plants.
CO 2	Understand the photosynthesis and respiration in plants.
CO 3	Understand population ecology.
CO 4	Acquire knowledge about ecosystem.

Paper XII- Plant Biochemistry

At the end of the course, students will be able to ------.	
CO 1	Collect information about carbohydrate metabolism and importance of carbohydrates.
CO 2	Get knowledge of lipid metabolism, classification and significance of lipids.
CO 3	Get information about synthesis, properties, classification of protein.
CO 4	Understand the forms of DNA, RNA, composition and structure of nucleic acid.

B.Sc. III Sem. VI

Paper XIII- Biology of Vascular Plants

At the end of the course, students will be able to ------.	
CO 1	Know general account of Pteridophytes.
CO 2	Get information about life cycle of Gnetum and evolutionary significance.
CO 3	Collect information about biosynthesis of amino acids, structure of protein.
CO 4	Understand types and models of nucleic acids.

Paper XIV- Microbiology and Plant Pathology

At the end of the course, students will be able to ------.	
CO 1	Get knowledge of microorganisms, preparation of culture media.
CO 2	Get information about microbial Genetics.
CO 3	Study the classification of plant diseases, transmission and prevention of disease.
CO 4	Train in plant disease identification and management based on examples.

Paper XV- Plant breeding, Biostatistics, Ethnobotany and Horticulture

At the end of the course, students will be able to ------.	
CO 1	Acquire knowledge of plant improvement.
CO 2	Collect information about methodology, role of Ethnobotany in modern medicines.
CO 3	Acquire knowledge of biostatistics.
CO 4	Train in gardening, plant nursery management.

Paper XVI- Molecular Biology and Biotechnology

At the end of the course, students will be able to ------.	
CO 1	Collect information of nucleic acid, history of DNA.
CO 2	Get knowledge of recombinant DNA technology.
CO 3	Train in genetic engineering.
CO 4	Collect information on history, preparation of culture media, applications of plant tissue culture.

2016-17 to 2018-19

B.Sc. II, Sem. III

Paper V: Algae, Fungi, Bryophytes and Industrial Applications

At the end of the course, students will be able to ------.	
CO 1	Learn the occurrence, thallus structure and reproduction of algae.
CO 2	Understand the occurrence, mycelium structure and reproduction and nutrition in fungi.

CO 3	Know about the occurrence, thallus structure and reproduction of bryophytes.
CO 4	Train in mushroom cultivation and study different types of biofertilizers.

Paper VI: Plant Physiology, Ecology and Horticulture

At the end of the course, students will be able to ------.	
CO 1	Acquire knowledge of plant growth hormones and different growth phases.
CO 2	Understand the physiology of flowering.
CO 3	Understand the concept of ecology.
CO 4	Trained in gardening and plant nursery management.

B.Sc. II, Sem. IV

Paper VII: Pteridophytes, Gymnosperms, Angiosperms and Anatomy

At the end of the course, students will be able to ------.	
CO 1	Understand the basic concept of vascular plants.
CO 2	Understand the classification and importance of pteridophytes.
CO 3	Gather information of classification and importance and history of life-cycle of Gymnosperms.
CO 4	Study the anatomy of plants.

Paper VIII: Cytogenetics and Utilization of Plant Resource

At the end of the course, students will be able to ------.	
CO 1	Understand the structure of different cell organelles.
CO 2	Acquire knowledge of Sub-cellular structure and cell membrane.
CO 3	Learn types of linkage and recombination process.
CO 4	Understand economic importance of medicinal plants and other plant resources.

2016-17 to 2017-18

B.Sc. I Sem. I Botany

Paper I: Diversity in Non-vascular Plants

At the end of the course, students will be able to ------.	
CO 1	Learn concepts related to non-vascular plants.
CO 2	Understand occurrence, distribution, classification and characteristics of algae.
CO 3	Understand different examples of fungi, their vegetative and reproductive features.
CO 4	Get knowledge about life cycle of Bryophytes.

Paper II: Plant Biochemistry, Physiology and Ecology

At the end of the course, students will be able to ------.	
CO 1	Understand cell and its structure and also Structure, properties and biological significance of water.
CO 2	Collect information about properties and classification of enzymes.
CO 3	Acquire knowledge of water transport process and transpiration.
CO 4	Understand the concept of ecology.

B.Sc. I, Sem. II

Paper III: Diversity in Vascular Plants

At the end of the course, students will be able to ------.	
CO 1	Understand the basic concept of vascular plants.
CO 2	Understand the classification and importance of pteridophytes.
CO 3	Gather information of classification and importance and history of life-cycle of Gymnosperms.
CO 4	Study the anatomy of plants.

Paper IV: Cytology, Genetics and Utilization of Plants

At the end of the course, students will be able to ------.	
CO 1	Study the cell division and cell cycle of plants.
CO 2	Gather information of Basic terminologies in genetics.
CO 3	Study gene interaction.
CO 4	Learn utilization and economic importance of different plants.

B.Sc.Electronics
ProgrammeSpecific Outcomes

After the completion of three year degree program in Electronics, students will be able to -----	
PSO 1	**Acquire sound knowledge of electronics, science and technology.**
PSO 2	**Develop technology to satisfy the needs of the core electronics industry.**
PSO 3	**Understand, analyze and solve real life problems faced in electronics industry.**
PSO 4	**Learn latest trends in Electronics.**

B.Sc.Electronics
Course Outcomes

B. Sc. I (CBCS) Semester-I Electronics

Paper – I Network Analysis & Analog Electronics

At the end of the course, students will be able to -----.	
CO1	Understand all components and basic circuit theory.
CO2	Learn network laws and theorems.
CO3	Know h, y, z parameters and their inter conversions.
CO4	Learn the working of PN junction diode, rectifiers and regulated power supply.

Paper – II Digital Integrated Circuits

At the end of the course, students will be able to ------.	
CO1	Understand different number systems and their inter conversions.
CO2	Learn different logic gates and Boolean Algebra to simplify logic equations.
CO3	Know different arithmetic and combinational circuits.

B. Sc. Part – I(CBCS) Semester – II

Paper – III Analog Electronics Circuits

At the end of the course, students will be able to ------.	
CO 1	Understand working of BJT, CB, CE &CC configurations and current gains.
CO 2	Learn transistor as an amplifier, concept load line &Q-Point stabilization.
CO 3	Know different multistage amplifiers.
CO 4	Understand feedback in amplifier with types.
CO 5	Understand different oscillators.
CO 6	Understand the working of unipolar devices.

B. Sc. Part – I(CBCS) Semester – II

Paper – IV Linear & Digital Integrated Circuits

At the end of the course, students will be able to ------.	
CO 1	Understand sequential circuits viz. flip flops, shift registers and counters.
CO 2	Learn about data conversion circuits- ADC &DAC
CO 3	Acquire knowledge of IC 741 &IC 555 with their specifications and applications.
CO 4	Know sequential circuits viz. flip flops, shift registers and counters.

B. Sc. Part – II Semester – III

Paper – V Communication Electronics

At the end of the course, students will be able to ------.	
CO 1	Understand functioning of basic communication systems.
CO 2	Know analog modulation &demodulation techniques.
CO 3	Learn satellite communication & navigation systems.

Paper – VI Introduction to Microprocessor 8085

At the end of the course, students will be able to ------.	
CO 1	Understand microcomputer organization and architecture of µP 8085.
CO 2	Learn instruction set and programming of µP 8085.
CO 3	Gain information about 8051 family and architecture of µC 8051.

B. Sc. Part – II Semester – IV

Paper – VII Digital Modulation and Mobile Telephone Systems

At the end of the course, students will be able to ------.	
CO 1	Understand analog pulse modulation techniques viz. PAM, PWM and PPM.
CO 2	Acquire digital pulse modulation techniques viz. ASK, FSK PSK and BPSK.
CO 3	Learn about mobile telephone system and networks viz. GSM, CDMA, TDMA and FDMA.

Paper – VIII Microcontroller and Embedded Systems

At the end of the course, students will be able to ------.	
CO 1	Understand addressing modes and instruction sets of µC 8051.
CO 2	Learn about facilities in µC 8051 viz. timer, time delay calculations in different modes and serial communications.
CO 3	Know programming of µC 8051 and real world interfacing.

B. Sc. Part – III Semester – V

Paper – IX Linear Integrated Circuits

At the end of the course, students will be able to -----.	
CO 1	Understand linear ICs and amplifiers.
CO 2	Understand Op-amp as an analog system and its applications.
CO 3	Learn about precision rectifier and active filters and design of different filters.
CO 4	Know PLL &design of power supply using different regulator ICs.

Paper – X Communication System-I

At the end of the course, students will be able to ------.	
CO 1	Understand fundamentals of communication systems, types and differentapplications.
CO 2	Learn about digital pulse modulation techniques viz. ASK, FSK PSK and BPSK.
CO 3	Know analog pulse modulation techniques viz. PAM, PWM and PPM.
CO 4	Understand antenna via there different parameters and radio wavepropagations.
CO 5	Learn radio receivers and main blocks of TV transmitter and receiver.

Paper – XI 8051 Microcontroller Interfacing and Embedded C

At the end of the course, students will be able to ------.	
CO 1	Understand serial communication with 8051 using different techniques.
CO 2	Acquire embedded C programming skills for 8051.
CO 3	Learn 8051 and its real world interfacing.
CO 4	Know real time applications of 8051.

Paper – XII Power Electronic Devices and Applications

At the end of the course, students will be able to ------.	
CO 1	Learn construction, characteristics and working of power solid statedevices.
CO 2	Understand single and three phase voltage controllers.
CO 3	Know about controlled and uncontrolled rectifiers.
CO 4	Gain knowledge of three phase current controllers.

B. Sc. Part- III Semester-VI

Paper- XIII Industrial Processes Control and PLC Program

At the end of the course, students will be able to ------.	
CO 1	Know introduction to control system.
CO 2	Understand components of control system.
CO 3	Learn introduction of PLC its application and advanced control algorithm.
CO 4	Understand Ladder programming basics.

Paper – XIV Communication System-II

At the end of the course, students will be able to ------.	
CO 1	Learn about telephone handsets and their working features in detail.
CO 2	Understand modern communication devices and system.
CO 3	Acquire knowledge of optical fiber communication and satellite communication.
CO 4	Know information broadcasting using digital communication and shift keying techniques.
CO 5	Learns wireless communication system and different technologies/ devices viz. 4G, Bluetooth, RFID and understand differentmultiplexing and multiple access techniques.

Paper – XV Advanced microcontroller Architecture PIC

At the end of the course, students will be able to ------.	
CO 1	Learn PIC controller and over views of different IC series with internal structure.
CO 2	Understand instruction set of PIC 18XXX and design of program.

CO 3	Understanding facilities available in PIC 18FXXX, -Interrupt programming, Serial Programming and real world interfacing

Paper – XVI Electronics Instrumentation

At the end of the course, students will be able to ------.	
CO 1	Learn measurement and instrumentation system.
CO 2	Know various active and passive transducer and sensors.
CO 3	Get information about instrumentation amplifier and signal conditioning system.

Electronics before 2018-19

B. Sc. Part – I Semester I

Paper – I Basic Electronics

At the end of the course, students will be able to ------.	
CO 1	Understand all types passive and active elements along with their specifications.
CO 2	Understand fundamentals of ac, dc signals and batteries.
CO 3	Understand network theorems and their applications.
CO 4	Understand different types of circuit laws, rules and motors.

Paper – II Semiconductor Devices

At the end of the course, students will be able to ------.	
CO 1	Understand construction and working of PN diode, Zener diode, light emitting diode and seven segment displays.
CO 2	Understand construction and working of BJT, its configurations and definition of current gains.
CO 3	Understand the concept of ac, dc load lines, different types of transistor's biasing methods and to study the expressions for stability factors.
CO 4	Understand construction, working of JFET, MOSFETS, their I-V characteristics and applications.

B. Sc. Part – I Semester – II

Paper – III Basic Digital Electronics

At the end of the course, students will be able to ------.	
CO 1	Understand different types of number systems, their interconversions and different types of binary codes.
CO 2	Understand different types of logic gates and TTL and CMOS logic families.
CO 3	Understand laws of Boolean Algebra and K-maps.
CO 4	Understand arithmetic circuits and computer organization.

Paper – IV Electronic Circuits

At the end of the course, students will be able to ------.	
CO 1	Understand working of rectifiers, their performance and filters.
CO 2	Understand working of CB, CE, CC amplifiers, and their coupling methods.
CO 3	Understand power amplifiers Class - A, B, AB & C types and also push-pull amplifiers.
CO 4	Understand feedback circuits and working of sinusoidal oscillators and their applications.

Up to 2018-19

B. Sc. Part – II Semester – III

Paper – V

At the end of the course, students will be able to ------.	
CO 1	Understand design and working of flip-flops.
CO 2	Learn design of counters and working of different types of counters.
CO 3	Understand shift registers, their types and working of buffer and latches.

CO 4	Understand construction and working of different types of Multiplexers, De-multiplexers and encoders & decoders.

Paper – VI Introduction to Microprocessor 8085

At the end of the course, students will be able to ------.	
CO 1	Understand the basics of microprocessor 8085 along with its architecture.
CO 2	Understand the instruction set of 8085.
CO 3	Understand different facilities in 8085.
CO 4	Learn assembly language programming of 8085.

Paper – VII Linear and Wave Shaping Circuits

At the end of the course, students will be able to ------.	
CO 1	Understand concept of two port networks and their interconversions.
CO 2	Understand the concept of series and parallel resonance.
CO 3	Understand working of linear and non-linear wave shaping circuits.
CO 4	Understand construction and working of multivibrators using BJT and also using IC 555.

Paper- VIII Microprocessor interfacing and Microcontroller 8051

At the end of the course, students will be able to ------.	
CO 1	Study IC 8255 and its operating modes.
CO 2	Understand interfacing of EPROM with microprocessor 8085.
CO 3	Study the basics, block diagram and architecture of 8051 along with its instruction set.
CO 4	Study different types of interrupts and timers of 8051.

M.Sc. Physics
Program Specific Outcomes

After the successful completion of two year Master's Degree programme in Physics, students are able to -----.	
PSO1	**Create, apply and disseminate knowledge of physics in theoretical and experimental domains under solid state physics specializations.**

PSO2	**Learn concepts of physics, particularly concepts in classical mechanics,quantum mechanics, statistical mechanics, electrodynamics, condensed matter physics, atomic and molecular physics and nuclear and particle physics.**
PSO3	**Develop the ability to identify, formulate, analyze and solve problems in theoretical and experimental domains of physics at bothcurricular and research level through critical thinking.**
PSO4	**Feel encouraged undertaking research and developing related technical proficiency.**
PSO5	**Develop attitude to pursue further research and find placement avenues through it.**
PSO6	**Imbibe academic and social ethical values.**

M.Sc. Physics
Course Outcomes

M.Sc.I Semester I

Mathematical Physics (CC- 101)

At the end of this course, ------	
CO1	Students are able to understand and calculate matrix Algebra and Eigen value problems.
CO 2	Students are able to learn complex variables like complex numbers, complex algebra, etc.
CO 3	Students are able to understand calculus of Residues theorem.
CO 4	Students are able to apply Fourier series analysis to solve numerical.

Classical Mechanics (CC-102)

At the end of this course, -----	
CO1	Students are able to understand electron and neutron diffraction methods.
CO2	Students are able to solve the problems related to Kepler's laws.
CO3	Students are able to understand fundamental special relativity in classical mechanics.
CO4	Students are able to know variation principle and Hamiltonian formulation.

Quantum Mechanics I (CC-103)

At the end of this course, ------	
CO 1	Students are able to understand fundamental concepts and formalism of quantum mechanics.
CO 2	Students are able to solve problems related to one-dimensional problems and Schrödinger equation.
CO 3	Students are able to calculate Eigen values and Eigen states of angular momentum.
CO 4	Students are able to analyse Ket and Bra spaces and inner products.

Condensed Matter Physics (CC-104)

At the end of this course, -----	
CO 1	Students are able to understand unit cell and Bravais lattice with the concept of Brillouin zones.
CO 2	Students are able to learn types of crystal defects.
CO 3	Students are able to know theory of diamagnetism.
CO 4	Students are able to understand fundamental dielectric and magnetic properties of the material.

Physics Lab (CCPR-105)

At the end of this course, -----	
CO 1	Students are able to understand and calculate crystal structure and F.C.C. & B.C.C.
CO 2	Students are able to understand Hall Effect and solve problems related to it.
CO 3	Students are able to understand and design experimental set up of heat capacity of material.
CO 4	Students are able to design experimental set up of temperature transducer for RTD and thermocouple.
CO 5	Students are able to design circuits of astable and monostable multivibrators.
CO 6	Students are able to understand fundamentals of mathematica and are able to solve various problems using it.
CO 7	Students are able to understand the theory behind B-H curve and apply the same for different materials.

M.Sc.I Semester II

Quantum Mechanics II (CC-201)

At the end of this course, ------	
CO 1	Students are able to understand and calculate Time dependent potentials.
CO 2	Students are able to learn scattering theory.
CO 3	Students are able to understand Spin Angular Momentum and theory of wave function.
CO 4	Students are able to know the concept of radiation and selection rule.

Statistical Mechanics (CC-202)

At the end of this course, ------	
CO 1	Students are able to understand and think critically about concepts, statistical equilibrium and thermodynamic laws and functions.
CO 2	Students are able to solve numerical Statistical Ensembles Theory.
CO 3	Students are able to understand and apply quantum distribution functions.

CO 4	Students are able to understand Phase Transitions and Critical Phenomenon.
CO 5	Students are able to understand Entropy and specific heat of a perfect gas, entropy and probability distribution.

Electrodynamics (CC-203)

At the end of this course, ------	
CO 1	Students are able to solve E.M. wave equations in waveguide of the arbitrary cross section: TE and TM modes. Students are able to understand and analyze reflection and refraction, polarization, Fresnel's law, interference, coherence and diffraction.
CO 2	Students are able to understand the applications to linear and circular motions: cyclotron and synchrotron radiations.
CO 3	Students are able to understand the Cerenkov radiation and Bremsstrahlung and to understand the structure of space time, Relativistic Mechanics.
CO 4	Students are able to solve numerical on Relativistic Energy and Momentum, Relativistic Kinematics, Relativistic Dynamics, Relativistic Electrodynamics, Magnetism as a Relativistic Phenomenon

Atomic and Molecular Physics (CC-204)

At the end of this course, ------	
CO 1	Students are able to understand and distinguish Atom Model for Two Valence Electrons i. e. l-s coupling, j-j coupling and the Pauli exclusion principle.
CO 2	Students are able to understand and differentiate various Zeeman Effect, Paschen- Back Effect and Stark basic effect.
CO 3	Students are able to understand basic phenomenon of microwave spectroscopy and classification of molecules.
CO 4	Students are able to understand fundamental the simple harmonic oscillator, the anharmonic oscillator instrumentation and chemical analysis by infra-red spectroscopy.

Physics Lab (CCPR-205)

At the end of this course, -----	
CO 1	Students are able to gain knowledge of fourier analysis, passive filters and solar cell.
CO 2	Students are able to understand mutual inductance of coil and series and parallel resonant circuits.
CO 3	Students are able to understand numerical solutions and plotting of simple functions using python.
CO 4	Students are able to understand fundamental and programming of mathematica including 2D and 3D plots.
CO 5	Students are able to write seminar reports.
CO 6	Students are able to submit certified seminar reports.

M.Sc.II Semester III

Nuclear and Particle Physics (CC-301)

At the end of this course, ------	
CO 1	Students are able to understand the nuclear forces and their potential to apply in experiments.
CO 2	Students are able to analyze the single particle nuclear shell model and related phenomena.
CO 3	Students are able to understand and apply selection rule of elementary particles and fission, fusion reactions.
CO 4	Students are able to understand and apply the Gellmann Nishijima formula to solve numerical problems.

Thin Solid films: Deposition and Properties (CCS-302)

At the end of this course, -----	
CO 1	Students are able to acquire knowledge about different physical methods for thin film deposition to improve experimental skills.
CO 2	Students are able to take up one of the methods (relatively simple and economical) for material synthesis during research.
CO 3	Students are able to get more insight about mechanism of nature, structure, and growth of the crystallographic films.
CO 4	Students are capable of correlating electric, magnetic and optical properties of thethin film with crystalline structure.

Semi-conductor Physics (CCS-303)

At the end of this course, -----	
CO 1	Students will be able to create, apply, and disseminate the basic properties of semi-conductors, materials and the physics behind them through solving problems.
CO 2	Students will be able to identify, formulate, analyze and solve problems in semiconductor physics.
CO 3	Students will be able to create the quantitative and qualitative understanding of semiconductors.
CO 4	Student will be able to apply quantitative and qualitative studies for designing electronic devices under various fields.

Computational Programming using Mathematica (DSE-304)

At the end of this course, students will be able to -----	
CO 1	Learn Mathematica: Essential Mathematica commands.
CO 2	Know manipulation of mathematical expressions.
CO 3	Perform symbolic and numerical calculations.
CO 4	Do graphical representation using Mathematica.

Practical on Specialization Subject: LAB-I+ Project on Specialization Subject: Project -I

At the end of this course,	
CO 1	Students are able to understand thin film deposition techniques.
CO 2	Students are able to learn different synthesis techniques of the thin film.
CO 3	Students are able to know the physical properties of thin film by XRD, FTIR and analyse them.
CO 4	Students are able to understand the structural properties of thin film by SEM, FESEM and analyse them.
CO 5	Students are able to understand deposition techniques.
CO 6	Students are able to synthesize thin film material.
CO 7	Students are able to characterize thin film material for different applications.

M.Sc.II, Semester IV

Experimental Techniques (CC-401)

At the end of this course, -----	
CO 1	Students are able to understand working, measurement of various types of the pumps and simple methods related to detectors.
CO 2	Students are able to understand low temperature and microscopy.
CO 3	Students are able to understand fundamentals of atomic absorption spectroscopy.
CO 4	Students are able to understand the principle of X-Ray Fluorescence spectrometry and Mossbauer spectrometry.
CO 5	Students are able to work on spectroscopy.

Physical Properties of Solids (CCS-402)

At the end of this course, -----	
CO 1	Students learn to apply classical kinetic theories of electron gas by Drude model to physical properties.
CO 2	Students correlate thermal, electrical, dielectric properties of metals to the structure of metals.
CO 3	Students understand the fact that materials respond to various quasiparticles viz, photon, phonon, plasmon, polaron, polariton etc. interaction.
CO 4	Students gain knowledge of lattice distortion or defects in crystal as well as luminescence mechanism based on light, electron and heat.

Semiconductor Devices (CCS-403)

At the end of this course, ------	
CO 1	Students are able to understand working mechanism of transistors and microwave devices.
CO 2	Students are able to understand the functions of BJT, JEFT, MOSFET, MESFET, etc.
CO 3	Students are able to understand different types of memories and their working mechanism.

CO 4	Students are able to understand knowledge of magneto-optic and piezoelectric devices.

Energy Conversion and Storage Devices (DSE-404)

At the end of this course, ------	
CO 1	Students are able to understand solar photovoltaics.
CO 2	Students are able to learn dye sensitized and quantum dot sensitized solar cells.
CO 3	Students are able to learn organic and perovskite solar cells.
CO 4	Students are able to understand energy storage device like supercapacitors and batteries.

Project -II + Practical on Specialization Subject: LAB-II (CCPR-405)

At the end of this course, ------	
CO 1	Students are able to perform experiments- PEC solar cell, phototransistor and LDR.
CO 2	Students are able to learn gas sensing mechanism and its calculations.
CO 3	Students are able to analyze EIS spectrum.
CO 4	Students are able to know IV characteristics of solar cell.
CO 5	Students are able to perform cyclic voltamogram for electrochromism and supercapacitor.
CO 6	Students are able to learn deposition techniques.
CO 7	Students are able to synthesize thin film material.
CO 8	Students are able to characterize thin film material and analyze them.

B.Sc. Physics
ProgramSpecific Outcomes

After successful completion of three year degree program in Physics, students are able to -----	
PSO1	**Understand core theories and principles of Physics.**
PSO2	**Learn the concepts of Physics through classical and quantum Phenomena.**
PSO3	**Use basic mathematics to describe and analyze physical phenomena.**
PSO4	**Enhance their learning abilities through development of laboratory experiments.**
PSO5	**Develop practical skills and techniques to solve the scientific Problems.**

B.Sc. Physics
Course Outcomes

B.Sc.I, Semester I

Mechanics I (DSC-1-A)

At the end of this course, students will have -----	
CO 1	Basic knowledge of applications of vector algebra in Physics.
CO 2	Knowledge about ordinary differential equations.
CO 3	Awareness about Newton's laws of motion and their applications.
CO 4	Basic concept of rotational motion.

Mechanics II (DSC-2-A)

At the end of this course, students have ------

CO 1	Knowledge about Newton's law of gravitation and Kepler's laws of planetary motion.
CO 2	Knowledge about simple harmonic motion and fundamentals of oscillations.
CO 3	Understood the concept of elasticity and its applications.
CO 4	Learnt the concept of surface tension and its applications.

B.Sc.I, Semester II

Electricity Magnetism I (DSC-1-B)

At the end of this course, students will have knowledge of -----	
CO 1	Applications of vector calculus.
CO 2	Basic theorems in vector calculus.
CO 3	Coulomb's law in electrostatics and its applications.
CO 4	Gauss's law in electrostatics and its applications.

Electricity Magnetism I (DSC-1-B)

At the end of this course, students will have knowledge of -----	
CO 1	Qualitative analysis of AC circuits.
CO 2	Magnetism and magneto-statics and their applications.
CO 3	Concept of electromagnetic induction.

CO 4	Basic idea of Maxwell's equations and propagation of electromagnetic waves.

B.Sc.II Semester III

Thermal Physics and Statistical Mechanics-I (DSC-1-C)

At the end of this course, students will have knowledge of -----	
CO 1	Different velocities of gas molecules.
CO 2	Maxwell's distribution of molecular velocities.
CO 3	Merits and drawbacks of thermometers.
CO 4	Laws of thermodynamics.

Waves and Optics –I (DSC-2-C)

At the end of this course, students have knowledge about	
CO 1	Superposition of harmonic oscillators.
CO 2	Theory of coupled oscillations.
CO 3	Ultrasonic waves and their applications.
CO 4	Basics of sound in the context of acoustics of buildings.

B.Sc.II, Semester IV

Thermal Physics and Statistical Mechanics-II (DSC-1-D)

At the end of this course, students will have knowledge of -----	
CO 1	Thermodynamic functions and Claussius-Clapeyron equation.
CO 2	Black body radiation spectrum.
CO 3	The general law of radiation- Planck's law.
CO 4	Classical and quantum statistical mechanics.

Waves and Optics –II (DSC-2-D)

At the end of this course, students will have knowledge about	
CO 1	Cardinal points and their graphical representation.
CO 2	Rayleigh criterion and resolving power of prism and grating.
CO 3	Qualitative study of polarization of light.
CO 4	Interference and diffraction of light.

B.Sc.II Semester IV

Mathematical Physics (DSE-E1)

At the end of this course, students will have knowledge of -----	
CO 1	Method of separation of variables: Laplace and wave equations.
CO 2	Some special functions: Legendre and Bessel functions.
CO 3	Some special integrals: Factorial, Gamma, Beta and Error functions.
CO 4	Complex algebra and analysis.

Quantum Mechanics (DSE-E2)

At the end of this course, students will have knowledge about ------	
CO 1	Concept of wave particle duality.
CO 2	Wave function and development of Schrodinger's wave equation.
CO 3	Fundamental operators in quantum mechanics.
CO 4	Applications of Schrodinger's wave equation.

Classical Mechanics and Classical Electrodynamics (DSE-E3)

At the end of this course, students will have knowledge about ------	
CO 1	Lagrange's equations and their applications.
CO 2	Hamilton's principle and techniques of calculus of variation.
CO 3	Einstein's special theory of relativity.
CO 4	Dynamics of charged particle under electric and magnetic fields.

Digital, Analog Circuits and Instrumentation (DSE-E4)

At the end of this course, students will have knowledge about ------	
CO 1	Logic gates and flip flops.
CO 2	Transistor amplifier and oscillator.
CO 3	CRO for different applications.
CO 4	Operational amplifier and timer circuits.

B.Sc.III, Semester VI

Nuclear and Particle Physics (DSE-F1)

At the end of this course, students will have knowledge of -----	
CO 1	Basic properties of nuclei.
CO 2	Construction and working of different types of nuclear accelerators.
CO 3	Construction and working of different types of nuclear detectors.
CO 4	Classification of elementary particles.

Solid State Physics (DSE-F2)

At the end of this course, students will have knowledge of -----	
CO 1	Basics of solids and crystal structure.
CO 2	X-ray diffraction and direct and reciprocal lattice.
CO 3	Theoretical aspects of magnetic materials.
CO 4	Theoretical understanding of band theory of solids.

Atomic and Molecular Physics and Astrophysics (DSE-F3)

At the end of this course, students will have knowledge of -----.	
CO 1	Atomic spectra.
CO 2	Molecular spectra.

CO 3	Raman and Infrared spectra.
CO 4	Structure of universe and stellar evolution.

Energy Studies and Materials Science*(DSE-F4)*

At the end of this course, students will have knowledge about	
CO 1	Working principles of wind and solar energy and their importance.
CO 2	Origin and conversion processes of biomass.
CO 3	Superconductivity and their applications.
CO 4	Concept of Nano-science and Nano-technology.

B.Sc. Zoology

Programme Specific Outcomes

After successful completion of the three year degree program in Zoology, students are able to -------

PSO 1	**Develop insight and improve analytical and practical knowledge in various aspects of Life Science, Genetics, Molecular Biology, Physiology, Applied Zoology, Embryology, Evolution, Biochemistry Applied Branches and Health.**
PSO 2	**Acquire knowledge of application in biological sciences such as biochemistry, apiculture, poultry,fishery, goat farming, agriculture and vermiculture.**
PSO 3	**Identify scientific facts behind every natural phenomenon.**
PSO 4	**Gain knowledge of handling sophisticated equipments.**
PSO 5	**Understand the morphology and functional characteristics at cellular and sub-cellular (molecular) level.**

B.Sc. Zoology
Course Outcomes

B.Sc.I Semester I

Paper I Animal Diversity

At the end of the course, students will be able to ------	
CO 1	Become aware of the importance of biodiversity and its conservation.
CO 2	Understand biodiversity related to non-chordates form Protista to Hemichordata.

Paper-II Animal Physiology

At the end of the course, students will be able to ------	
CO 1	Understand various normal physiological activities in mammalian body.
CO 2	Become aware of finely balanced metabolic activities carried out in the body and need for maintaining the homeostasis.

B.Sc.I Semester II

Paper III Cell Biology and Evolution

At the end of the course, students will be able to ------	
CO 1	Know basic structural and functional unit of life and its organization.
CO 2	Learn organic evolution and various theories of evolution.
CO 3	Get information about evidences of evolution and mass extinction.

Paper IV:Genetics

At the end of the course, students will be able to ------	
CO 1	Know linkage and crossing over.
CO 2	Learn the science of inheritance.
CO 3	Understand patterns of inheritance co-dominance.

B.Sc.III Semester V

Paper IX: Functional Anatomy of Non-Chordates

At the end of the course, students will be able to ------	
CO 1	Know invertebrate phylum protozoa, coelenterate and mollusca.
CO 2	Learn various insect metamorphoses.
CO 3	Understand basic structural and functional parts of leeches and sea stars.
CO 4	Become aware of human genetics and disorders like Phenylketonuria and Sickle Cell Anemia.

Paper X: Biostatistics, Bioinformatics and Medical Zoology

At the end of the course, students will be able to ------	
CO 1	Understand biostatistics terms such as tabulation, measure of central tendency and correlation.
CO 2	Become aware of various pathogenic insect vectors.

Paper XI: Endocrinology, Environmental Biology and Toxicology

At the end of the course, students will be able to ------	
CO1	Understand molecular concepts in biology.
CO2	Become aware of various modes of biotechnology.
CO3	Learn about application of biotechnology in medicine, animal husbandry and agriculture.

Paper XII: Molecular Biology, Biotechnology and Biotechniques

At the end of the course, students will be able to ------	
CO 1	Understand anatomy, histology, role, regulation and disorders of various endocrine glands of humans.
CO 2	Learn effects of toxicants on humans and other animals.
CO 3	Know the anatomy, histology, role, regulation and disorder various endocrine glands of humans.
CO 4	Become aware about environment, conservation strategies, national parks and wild life sanctuaries in India.

B.Sc.III, Semester VI

Paper XIII Comparative Anatomy of Chordates

At the end of the course, students will be able to ------	
CO 1	Know integuments and endoskeleton among the vertebrates.
CO 2	Learn about basic structural and functional parts of digestive and respiratory systems from lower vertebrates to higher vertebrates.
CO 3	Understand excretory and nervous systems of various classes of vertebrates.

Paper XIV Developmental Biology

At the end of the course, students will be able to ------	
CO 1	Understand development of chicks upto 72 hrs.
CO 2	Learn about early and late developmental processes of Amphioxus.
CO 3	Know about placenta, organizer and retrogressive metamorphosis and continuity of various species.

Paper XV Physiology

At the end of the course, students will be able to ------	
CO 1	Understand human nutritional requirements and balanced diet.
CO 2	Know about classification and biological significance of carbohydrates, proteins and lipids.
CO 3	Learn the importance of vitamins in diet and effects of their deficiency.

Paper XVI Applied Zoology

At the end of the course, students will be able to ------	
CO 1	Understand the economic importance of apiculture, lac culture emu, goat and vermiculture.
CO 2	Gain knowledge of some crop pests, house hold pests, store rain pests and their biological control.

CO 3	Learn fisheries industry and economic importance of fishes.

B.Sc.I 2016-2018 Zoology

Paper I-Animal Diversity-I

At the end of the course, students will be able to ------	
CO 1	Learn animal diversity from phyla from Protista to Annelida.
CO 2	Know of five kingdom classification system and biodiversity related to non-chordates from Protista to Annelida.

Paper-II- Cell Biology & Genetics

At the end of the course, students will be able to ------	
CO 1	Possess deeper insights into the structure and functions of a living cell, patterns of inheritance co-dominance, Incomplete dominance, multiple alleles.
CO 2	Know about the science of inheritance, Mendelian genetics and divergence from Mendelism.

Paper-III- Animal Diversity II

At the end of the course, students will be able to ------	
CO 1	Understand characters, classification and phylogenic relations among various phyla and classes of proto chordata to amphibian.
CO 2	Understand special characters of fish like scales, gills and fins.
CO 3	Understand special characters of cephalochordate and amphibian by studying representative like Amphioxus and frog.

Paper IV- Ecology, Ethology, Evolution and Applied Zoology

At the end of the course, students will be able to ------	
CO 1	Understand various concepts of ecology as an essential subject in today's world where harsh consequences like climate change and role of genetically modified organisms.
CO 2	Understand evidences of evolution like fossils, connecting links and living fossils.
CO 3	Understand concepts like mimicry, camouflage, Courtship behavior and social behavior with suitable examples. Economic zoology.
CO 4	

B.Sc. II Zoology 2016-17 to 2018-2019

Paper V- Animal Diversity-III

At the end of the course, students will be able to ------	
CO 1	Learn about some amazing invertebrates.
CO 2	Know about some highly specialized characters of the phyla with suitable examples.

Paper VI- Genetics and Biological Chemistry

At the end of the course, students will be able to ------	
CO 1	Understand the concepts like pH and buffers.
CO 2	Know about nucleic acids and enzymes.
CO 3	Understand the concepts of genetics like linkage, crossing over, sex determination, gynandromorphs, and interaction of genes, lethal genes and human twins.

Paper VII: Animal Diversity-IV

At the end of the course, students will be able to ------	
CO 1	Understand the characters, classification and phylogenic relations among reptiles, aves and mammals.
CO 2	Become aware about poisonous and non-poisonous snakes, venom and its effect, snake bite and first aid.
CO 3	Study amazing vertebrates.

Paper VIII: Histology and Physiology

At the end of the course, students will be able to ------	
CO 1	Impart knowledge of hormones.
CO 2	Become aware of contraceptives and their types.
CO 3	Know about modern technique like IVF.
CO 4	Learn about histological structures of mammalian organs.

B.Sc. Computer Science
Program Specific Outcomes

After successful completion of three-year degree program in Computer Science, students are able to -----

PSO1	**Gain knowledge of and acquire programming skills required in the field of computer science such as a range of programming languages such as Python, computing architecture, construction and design underlying the field of computer science and related disciplines.**
PSO2	**Know about database concepts, data model, relational algebra and SQL queries, database design process steps.**
PSO3	**Perform laboratory-orientated computer programs to demonstrate different programming language concepts.**
	Analyse and resolve security issues in networks and computer systems to secure an IT infrastructure.
PSO4	**Design, document, code and test C# console and GUI applications.**
PSO5	**Understand Linux Architecture, use of basic command and explain administrator privileges, super user basic command to add, modify and delete users and understand basics of file systems.**

B.Sc. Computer Science
Course Outcomes

Computer Science B.Sc.I Semester-I

Paper -I DSC-11A: Problem Solving Using Computers

At the end of the course, students will be able to -----	
CO1	Acquire basic knowledge of programming in C.
CO2	Gather extensive knowledge in C programming and develop programming skills.
CO3	To learn the concepts of file handling.
CO4	Strengthen knowledge of control structure, arrays etc., of C Programming.

Paper- II DSC-12A Database Management System

At the end of the course, students will be able to -----	
CO-1	Understand the concept of DBMS and Data Models.
CO-2	Learn DBMS architecture and ER Diagram.
CO-3	Know the concept of object modeling.
CO-4	Learn the concept of Schemas and instances.

Paper – III DSC-11B Programming Skills Using 'C'

At the end of the course, students will be able to -----	
CO-1	Understand the concept of 'C' programme, function and different types.
CO-2	Perform different operations using pointer.

CO-3	Apply different file handling operations.
CO-4	Learn the concept of Dynamic Memory Allocation.

Paper – IV DSC-12B Relational Database Management System

Course Outcomes	At the end of the course, students will be able to -----
CO-1	Understand the concept of Relational Data Model.
CO-2	Learn relational algebra and SQL queries.
CO-3	Know ER-Diagram and Functional Dependencies.
CO-4	Understand SQL Clauses and Concept of Normal Forms.

B.Sc. (Computer Science) Part – II CBCS Sem-**III**

DSC-11C: PHP and My SQL

At the end of the course, students will be able to -----	
CO1	Understand the concepts of PHP scripts.
CO2	Know different Branching and Looping statements.
CO3	Learn how to develop applications in PHP using MySQL and develop various PHP technology applications that meet current industry needs.

DSC-12C Object Oriented Programming Using C++

At the end of the course, students will be able to -----	
CO1	Understand the concepts of OOP.
CO2	Learn the concepts of Classes in C++.
CO3	Know how to create constructor and destructor.
CO4	Understand operator overloading process.

B. Sc. II Semester – IV

DSC-11D Cyber Security Essentials

At the end of the course, students will be able to -----	
CO1	Understand the concept of information security management.
CO2	Learn different access controls methods.
CO3	Know about wireless network security.
CO4	Understand cyber security laws and the importance of security audit.

DSC-12D Data Structure Using C++

At the end of the course, students will be able to -----	
CO1	Understand basic concepts such as Abstract Data Types, Linear and Non-Linear Data structures.
CO2	Acquire the ability to choose appropriate data structures to represent data items in real world problems.
CO3	Analyze time and space complexities of algorithms and design programs using a variety of data structures such as array, stacks, queues, linked list.
CO4	Analyze and implement various kinds of searching and sorting techniques.

B.Sc. III Semester V

Paper – IX Core Java

At the end of the course, students will be able to -----	
CO1	Understand concepts of Java Programming.
CO2	Learn concepts of Inheritance and Packages.
CO3	Know about Multithreading and Exception.
CO4	Learn Applets Programming & AWT.

Paper – X Visual Programming Using C#

At the end of the course, students will be able to -----	
CO1	Understand concepts of NET framework.
CO2	Learn concepts of C# programming.
CO3	Know concepts of Web Programming.
CO4	Learn the concept of ADO .NET.

Paper – XI Linux Part - I

At the end of the course, students will be able to -----	
CO1	Learn fundamental concepts of open-source operating system Linux.
CO2	Understand the basic set of commands and editors in Linux operating system.
CO3	Knowshell programming in Linux operating system.
CO4	Distinguish between various filter and server commands.

Paper – XII Python Part- I

At the end of the course, students will be able to -----	
CO1	Understand the concepts of Python.
CO2	Learn the concept of conditional statement & looping.
CO3	Understand the concept of string manipulation& list.
CO4	Learn Tuple &Dictionaries.

B.Sc. – III Semester VI

Paper – XIII Advance Java

At the end of the course, students will be able to -----	
CO1	Develop distributed business applications, web pages using advanced server-side programming through servlets and Java server pages.
CO2	Demonstrate approaches for performance and effective coding.
CO3	Learn database programming using Java.
CO4	Understand web development concept using Servlet and JSP

Paper – XIV: ASP.Net

At the end of the course, students will be able to -----	
CO1	Understand the concepts of .NET framework.
CO2	Learn practical aspects of multi-tier web-based application development using the .NET framework.
CO3	Understand the concept of ADO .NET.
CO4	Know the basics of distributed web application development.

Paper – XV: Linux Part - II

At the end of the course, students will be able to -----	
CO1	Understand concepts of memory management and advanced VI Editor.
CO2	Learn Advanced Filters.
CO3	Know Advanced shell programming.
CO4	Learn Network and System administration.

Paper – XVI: Python Part- II

At the end of the course, students will be able to -----	
CO-1	Write functions and pass arguments in Python.
CO-2	Learn how to build and package Python modules for reusability.

CO-3	Know how to use exception handling in Python applications for error handling.
CO-4	Learn the concept of Object-Oriented Programming.

M.Sc. Microbiology
Programme Specific Outcomes

After the completion of the two year programme in Microbiology, students will be able to ------	
PSO 1	**Learn about characters and classification of microbes.**
PSO 2	**Understand physiology and reproduction in microbes.**
PSO 3	**Acquire techniques of isolation, culture and preservation of clinical microbes.**
PSO 4	**Get knowledge of disease development stages and control of diseases.**
PSO 5	**Acquire skills in the use of techniques of Chromatography, Microscopy, Spectroscopy, electrophoresis, etc**
PSO 6	**Understand concepts in microbial ecology.**

M.Sc. Microbiology
Course Outcomes

M.Sc. I Semester-I

Paper I- Taxonomy and Microbial Diversity (MIC-101)

At the end of the course, students will be able to -----	
CO 1	Understand general characteristics of different groups of microbes.
CO 2	Learn about classification and morphology of fungi.
CO 3	Know about characteristics and physiology of oxygenic and anoxygenic photosynthetic bacteria.
CO 4	Isolate Magnatotactic bacteria.
CO 5	Understand Bergeys manual, classification of prokaryotic organisms and modern trends in prokaryote taxonomy.

Paper II – Virology (MIC-102)

Course Outcomes	At the end of the course, students will be able to -----
CO 1	Understand reproductive cycle and interactions of phases.
CO 2	Get knowledge of transmission of plant viruses and their effects on plants.
CO 3	Learn reproductive cycle of animal viruses ad differentiate genetic material.
CO 4	Understand slow viruses, DI particles, inhibition and inactivation of bacteriophages, animal and plant viruses and antiviral chemotherapy.

Paper III- Immunology (MIC-103)

At the end of the course, students will be able to -----	
CO 1	Understand major histocompatibility complex, T cells, T cell signaling by cytokines and the role in immune response.
CO 2	Get knowledge about complement system, Antibodies and its diversity, immune modulation, potential, tolerance and suppression along with vaccines.
CO 3	Learn about transplantation and tumor immunology.
CO 4	Learn to use techniques of serological tests used for disease diagnosis.

Paper IV- Genetics and molecular biology(MIC-104)

At the end of the course, students will be able to -----

CO 1	Know about origin and evolution of economically important microbes.

CO 2	Understand principles of mendelian inheritance.
CO 3	Learn about molecular basis of mitosis and meiosis.
CO 4	Know about molecular mechanism of recombination and restriction and modification of DNA.
CO 5	Get knowledge about teratogenesis, cancer and oncogenesis,
CO 6	Learn practical procedures of techniques in molecular genetics.

M.Sc. I Semester -II

Paper –V Techniques in Microbiology (MIC-201)

At the end of the course, students will be able to -----	
CO 1	Learn techniques of microbial culture and their preservation.
CO 2	Know different methods of isolation and culture of microbes.
CO 3	Get knowledge about human and animal pathogenic fungi.
CO 4	Comprehend principles and working mechanism and applications of various microscopy and spectroscopy techniques.
CO 5	Acquire skills of applying techniques of Chromatography.
CO 6	Train for techniques such as electrophoresis and centrifugation.

Paper-VI Microbial physiology, Biochemistry and Metabolism (MIC-202)

At the end of the course, students will be able to -----	
CO 1	Know the mechanism of carbohydrate metabolism in microbes.
CO 2	Get knowledge of mechanism of respiration.
CO 3	Learn about drug metabolism in microbes.
CO 4	Understand mechanism of protein and lipid metabolism.
CO 5	Learn microbial harmones.

Paper-VII, Medical Microbiology (MIC-203)

At the end of the course, students will be able to -----	
CO 1	Get knowledge about stages of development of diseases.
CO 2	Understand microbial attributes that enable them to develop diseases.
CO 3	Learn the mechanism of pathogen survival.
CO 4	Apply knowledge of clinical specimen collection, processing and transport.
CO 5	Know bacterial,fungal and viral diseases with respect to pathogen morphology, biochemical,antigenic characters.
CO 6	Get knowledge about transmission, prevention and control of diseases.
CO 7	Learn different methods and techniques of disease diagnosis.

Paper –VIII Microbial Ecology (MIC-204)

At the end of the course, students will be able to -----	
CO 1	Understand concepts of microbial ecology.
CO 2	Get knowledge of microbial community and ecosystem.
CO 3	Learn physiological ecology.

CO 4	Understand microbe-microbe, microbe-plant and microbe-animal interactions.
CO 5	Learn ecological control of pests and diseases.

M.Sc. II Semester – III

Paper-IX, MIC-301- Biostatistics, Bioinformatics and Scientific Writing

At the end of the course, students will be able to -----	
CO 1	Learn concepts and applications of biostatistics and bioinformatics.
CO 2	Acquire skills in methods of sampling, collection and presentation of scientific data.
CO 3	Get knowledge about tools for analysis of Variance (ANOVA), Correlation and Regression.
CO 4	Become skilled applications of bioinformatics tools, database management, etc.
CO 5	Understand concepts of Scientific Writing.

Paper-X, MIC-302- Enzymology and Enzyme Technology

At the end of the course, students will be able to -----	
CO 1	Know the characteristics, specificity, types and classification of enzymes.
CO 2	Learn mechanism of enzyme activity and enzyme kinetics.
CO 3	Acquire knowledge about bioassays of enzymes.
CO 4	Understand the various mechanisms of structural modifications of enzymes and metabolic regulations.
CO 5	Apply knowledge of enzymes in industries including pharmaceuticals, biotech as well as food industry.

Paper-XI, MIC-303- Fermentation Technology

At the end of the course, students will be able to -----	
CO 1	Get knowledge about design and development of fermentation process.
CO 2	Learn microbiological aspects related to fermentation process, metabolic pathways, operations and purification of products.
CO 3	Understand the importance of intellectual property rights, including patents.
CO 4	Learn production of economical products by using fermentation process.
CO 5	Get knowledge about advances in fermentation technology, usage of computers and software in process control.

Paper-XII, MIC-304- Quality Control Microbiology-I

At the end of the course, students will be able to -----	
CO 1	Understand the scope of microbiology in industries including pharmaceuticals, biotechnology, food, etc.
CO 2	Get knowledge of design and working of microbiology laboratories.
CO 3	Apply various instruments and equipments used in laboratories.
CO 4	Understand practical applications of microbiology principles in day today working in laboratories.

CO 5	Know statutory and regulatory requirements for microbiological testing laboratories.

M.Sc.II Semester -IV

Paper-XIII, MIC-401- Food and Dairy Microbiology

At the end of the course, students will be able to -----	
CO 1	Understand types of food, food spoilages, factors contributing to spoilage of food products.
CO 2	Learn the role of micro-organisms in the preparation and spoilage of food products.
CO 3	Undertand principles and methods of food preservation.
CO 4	Know analytical methods used for analysis of food products.
CO 5	Get knowledge about food born diseases, food intoxication, etc.
CO 6	Trained for analytical techniques for microbiological quality testing of food products.
CO 7	Understand food safety laws, rules and regulations.

Paper-XIV, MIC-402- Industrial Waste Management

At the end of the course, students will be able to -----	
CO 1	Learn waste management techniques.
CO 2	Understand environmental impact of waste water on ecosystem.
CO 3	Comprehend various processes of industrial waste water treatment.
CO 4	Be skilled in analytical techniques of waste water analysis.
CO 5	Understand concepts of waste disposal control and regulations.

Paper-XV MIC-403- Recombinant DNA Technology

At the end of the course, students will be able to -----	
CO 1	Get knowledge about concepts, principles, tools and techniques of recombinant DNA technology.
CO 2	Learn the techniques and applications of gene cloning in microorganisms, plants and animals.
CO 3	Understand the concept of genomic libraries.
CO 4	Use practical applications of DNA Technology in industries including agriculture, biopharmaceuticals, food, etc.

Paper-XVI MIC-404- Quality Control Microbiology-II

At the end of the course, students will be able to -----	
CO 1	Get knowledge about regulatory authorities across the world controlling manufacturing of food and drugs products.
CO 2	Learn concepts of clean rooms in pharmaceuticals, sterility testing, endotoxin testing and microbiological analysis of products.
CO 3	Understand quality management systems, working principles, role and responsibilities of QMS.

CO 4	Apply documentation process, auditing in industries.

B.Sc. Microbiology
Programme Specific Outcomes

After completing the three year programme in Microbiology, students will be able to ------	
PSO 1	**Get knowledge about the different groups of microorganisms, the cellular and reproductive growth in microorganisms, metabolism in prokaryotes, etc.**
PSO 2	**Get trained in different methods used in the study of microorganisms.**
PSO 3	**Understand correlation between microorganisms and environment and try to maintain balance**
PSO 4	**Apply knowledge of applications of microorganisms in daily use.**
PSO 5	**Learn different technology and their applications in microbiology.**

B.Sc. Microbiology
Course Outcomes

B.Sc. I SEM. I

Paper I –DSC-25A- Introduction to Microbiology

At the end of the course, students will be able to -----	
CO 1	Understand contributions of scientists in Microbiology.
CO 2	Learn about taxonomic ranks.
CO 3	Acquire skill development in the methods of staining.
CO 4	Understand scope of Microbiology.

Paper II –DSC-26A- Microbial Diversity

At the end of the course, students will be able to -----	
CO 1	Understand different groups of organisms.
CO 2	Learn methods to control microorganisms.
CO 3	Know about cellular structure and organization of bacteria & viruses.
CO 4	Understand nutritional requirement of microorganisms.

B.Sc. I , SEM. II

Paper III –DSC-25B- Bacteriology

At the end of the course, students will be able to -----	
CO 1	Understand structure & functions of cytoplasmic components.
CO 2	Acquire the techniques used in the isolation of microorganisms.
CO 3	Get knowledge of systematic study of cultures.
CO 4	Understand function of cell organizations.
CO 5	comprehend interaction between living and nonliving things.

Paper IV DSC-26B Microbial Biochemistry

At the end of the course, students will be able to -----	
CO 1	Learn about biomolecules.
CO 2	Acquire knowledge about culture media.
CO 3	Understand the concept of anabolism & catabolism with examples.
CO 4	Know Nucleic acids.

B.Sc. II SEM. III

Paper V DSC- 25C Microbial Physiology & Metabolism

At the end of the course, students will be able to -----	
CO 1	Understand the growth phases in microorganisms.
CO 2	Learn pathway of catabolism.
CO 3	Know bacterial electron transport chain.
CO 4	Learn process of fermentation.

Paper VI –DSC-26C- Applied Microbiology

At the end of the course, students will be able to -----	
CO 1	Learn about biomolecules.
CO 2	Acquire knowledge about culture media.
CO 3	Understand the concept of anabolism & catabolism with examples.
CO 4	Learn nucleic acids.

B.Sc. II SEM. IV

Paper VII DSC-D25 Microbial Genetics and Molecular Biology

At the end of the course, students will be able to -----	
CO 1	Understand concept of mutation & various types of mutation.
CO 2	Understand mutagens.
CO 3	Know basic concepts of gene, genotype, phenotype etc.
CO 4	Learn techniques of gene transfer in bacteria.

Paper VIII DSC-D26 Basics in Medical Microbiology and Immunology

At the end of the course, students will be able to -----	
CO 1	Know different types of diseases.
CO 2	Learn mode of transmission of diseases.
CO 3	Understand the concept immunology.
CO 4	Understand general principles of prevention and control of microbial diseases.

B.Sc. III SEM –V

Paper IX Virology

At the end of the course, students will be able to -----	
CO 1	Learn isolation,cultivation and purification of viruses.
CO 2	Know enumeration of viruses.
CO 3	Understand reproduction of animal and plant viruses.
CO 4	Gain knowledge about oncogenesis and types of cancer.

Paper X Immunology and Serology

At the end of the course, students will be able to -----

CO 1	Gain knowledge of membrane receptors for antigen and their role in antigen recognition.
CO 2	Learn molecular mechanism of antibody production.
CO 3	Understand concept of immunological tolerance.
CO 4	Know hypersensitivity and its types.

Paper XI Food and Industrial Microbiology

At the end of the course, students will be able to -----	
CO 1	in the methods of strain improvement.
CO 2	Learn about food poisoning.
CO 3	Know the concept of probiotics.
CO 4	Develop skills in the preservation of industrially important microorganisms.

Paper XII Agricultural Microbiology

At the end of the course, students will be able to -----	
CO 1	Learn about soil texture.
CO 2	Understand the role of microorganisms in soil and their benifcial uses.
CO 3	Acquire the skill of using methods of biodegrations of cellulose, pesticides.
CO 4	Know various plant diseases and their preventions.

B. Sc . III Semester VI

Paper-XIII Microbial Genetics

At the end of the course, students will be able to -----	
CO 1	Acquire skills in molecular biology techniques.
CO 2	Learn about genetic engineering.
CO 3	Comprehend the concept of mutation.
CO 4	Learn the basics of bacterial genome.

Paper XIV Microbial Biochemistry

At the end of the course, students will be able to -----	
CO 1	Understand various enzymes and their application.
CO 2	Learn skills in methods of enzyme purification.
CO 3	Know the biochemical pathways.
CO 4	Comprehend biosynthesis of macromolecules.

Paper XV Environmental Microbiology

At the end of the course, students will be able to -----	
CO 1	Learn waste management techniques.
CO 2	Acquire skills in bioremedation.
CO 3	Know about various wastes.
CO 4	Learn techniques of environmental impact assessment.

Paper XVI Clinical Microbiology

At the end of the course, students will be able to -----	
CO 1	Understand various diseases.
CO 2	Learn chemotherapy.
CO 3	Acquire skills in immunoprophylaxis.
CO 4	Get acquainted with the concept of gene therapy.

M.Sc. Chemistry
Program Sepcific Outcomes

After successful completion of the two year postgraduate programme in Chemistry, students are be able to ------	
PSO 1	**Know the structure and bonding in molecules/ions and predict the structure of molecule/ions.**
PSO 2	**Understand various types of aliphatic, aromatic, nucleophilic substitution reactions.**
PSO 3	**Apply principles of Organic Chemistry for understanding scientific phenomenon in reaction mechanisms.**
PSO 4	**Learn familiar name reactions and their reaction mechanisms.**
PSO 5	**Understand good laboratory practices and safety measures.**
PSO 6	**Know free radical, bycyclic compound, conjugate addition of enolates and pericyclic reactions.**

M.Sc. Chemistry
Course Outcomes

M. Sc. I Sem.I & Sem.II

Inorganic Chemistry

At the end of the course, students will be able to -----	
CO 1	Know the importance of nuclear chemistry and its applications..
CO 2	Transform from memorization to understanding by programmed exposure to integrated problems involving mechanism, multi-step syntheticplanning and organic spectroscopy.
CO 3	Acquire knowledge of analytical techniques.
CO 4	Use & handle sophisticated instruments.

Organic Chemistry

At the end of the course, students will be able to -----	
CO 1	Predict and account for the most commonly encountered reaction mechanisms inorganic chemistry including aromatic substitution reaction, addition reactions,elimination reactions and rearrangements.
CO 2	Understand the concept and definitions of aliphatic nucleophilic and electrophilic substitution reactions and fundamentals of free-radicals.
CO 3	Develop research oriented skills in applied organic chemistry by applying principles and theories of advanced organic chemistry.
CO 4	Understand the concept and definitions of aliphatic nucleophilic and electrophilicsubstitution reactions, fundamentals of free-radicals and pericyclic chemistry.

Physical Chemistry

At the end of the course, students will be able to -----	
CO 1	Understand the concept of phase rule and its applications.
CO 2	Know the concept of quantum chemistry, operators, oscillators and numericals.
CO 3	Learn the application of perturbation theory to small molecules.
CO 4	Determine various solids, its classification, unit cell parameters.
CO 5	Comprehend fundamental concept of photochemistry, via Jablanski diagram and various phenomena.

Analytical Chemistry

At the end of the course, students will be able to -----	
CO 1	Understand basic profile of electromagnetic radiations, scientific notations for absorption, emission, transmission, reflection, dispersion, polarization and classify electromagnetic spectrum ion of spectra.
CO 2	Learn the basic concept of microwave spectroscopy and classify molecules on the basis of structural parameters.
CO 3	Analyse the effect of isotopic substitution and nonregid bond and polyatomicmolecules, determine rotation of molecules, rotational spectra, diatomic molecules.
CO 4	Compare regid and nonregid molecular spectra in terms of their electronic and geometric factor.
CO 5	Assess linear harmonic oscillator, the vibrating diatomic molecule, the simple harmonic oscillator, the anharmonic oscillator and other supporting models.

M. Sc. II Semester-III Organic Reaction Mechanism

At the end of the course, students will be able to -----	
CO 1	Understand and interpret spectra (IR, 1H NMR, 13C NMR, Mass Spec., and UV-VIS) of organic molecules.
CO 2	Learn stereochemistry and its importance.
CO 3	Familiarize with various types of aromatic substitution reaction and their Mechanism.
CO 4	Apply advanced synthetic techniques.

Spectroscopic Methods

At the end of the course, students will be able to -----	
CO 1	Gain knowledge about organic chemical reactions with a focus on principles for effective synthetic strategies.
CO 2	Apply stereochemical concepts such as chirality, stereoisomerm and stereoselectivity in relation to chemical transformations.

CO 3	Get advanced knowledge about the interactions of electromagnetic radiation and matter and their applications in organicspectroscopy to elucidate the structure of the organic compounds.
CO 4	Learn addition reactions, elimination reactions and rearrangements.

Advanced SyntheticTechniques

At the end of the course, students will be able to -----	
CO 1	Learn various thermal techniques for identification of stability of chemical compounds.
CO 2	Know atomic X-ray and mass spectrometry.
CO 3	Acquire knowledge of various diffraction techniques and their applications.
CO 4	Gain knowledge of different radiochemical and automated methods of analysis.
CO 5	Evaluate and quantify errors associated with measurements made using nstrumental techniques.

M.Sc. II Semester-IV Drugs and Heterocycles

At the end of the course, students will be able to -----	
CO 1	Learn computational approach in designing molecules.
CO 2	Understand conceptual leaning of drug discovery.
CO 3	Learn synthesis of five, six, membered heterocycles with mechanistic approach.

Theoretical Organic Chemistry

At the end of the course, students will be able to -----	
CO 1	Understand the aromaticity concept of non-benzoid system.
CO 2	Know the supramolecular chemistry with various molecules.
CO 3	Know the difference between the kinetic and thermodynamic controlled reactions with applications Aromaticity in benzenoids, alternant and non alternanthydrocarbon, Huckels rule, etc.

Stereochemistry

At the end of the course, students will be able to -----	
CO 1	Implement new methods of stereoselective synthesis.
CO 2	Use conformational approach to acyclic and alicyclic systems.
CO 3	Learn advanced stereochemistry with crams rule, Felkin Ahn rule, Octant rule, etc.

Chemistry of Natural Products

At the end of the course, students will be able to -----	
CO 1	Understand basic classification and role of alkaloids.

CO 2	Do structural elucidation and degradation of alkaloids.
CO 3	Describe the synthesis and structure of alkaloids.
CO 4	Learn the stereochemistry of alkaloids.
CO 5	Understand isolation and structural determination of alkaloids.

Applied Organic Chemistry

At the end of the course, students will be able to -----	
CO 1	Comprehend the entire work area of the industry.
CO 2	Learn about the nature of jobs in various sectors of the industry.
CO 3	Adapt with the working people and learn team work.
CO 4	Learn manufacturing procedures and technical skills involved.
CO 5	Understand mechanism of the reactions involved in the manufacturing areas in different sectors.
CO 6	Correlate the manufacturing procedures with simple laboratory synthesis.

B.Sc. Chemistry
Programme Specific Outcomes

On completion of B. Sc. in the subject of Chemistry, students will be able to ------	
PSO 1	**Understand physical chemistry concepts like derivation, theories, laws, etc. by practical application in which traditional and modern apparatus are used.**
PSO 2	**Learn classical & industrial chemistry, applications of coordination compounds, corrosion & prevention of corrosion, manufacturing process of paper industry, soaps, detergents, industrial manufacturing process of ammonia, acids, polymers, knowledge of petroleum industry and use of ecofriendly fuels.**
PSO 3	**Learn laboratory skills and safely to transfer and interpret knowledge entirely in the working environment.**
PSO 4	**Acquire skills required to succeed in chemical industry like cement industries, agro products, paint industries, rubber industries, petrochemical industries, food processing industries and fertilizer industries.**

B.Sc. Chemistry
Course Outcomes

B. Sc. I, Semester-I And II

Inorganic Chemistry

At the end of the course, students will be able to -----	
CO 1	Understand importance of hybridization and its types.
CO 2	Know general characteristics of ionic bond.
CO 3	Know the formation of NaCl with the help of Born-Haber Cycle.
CO 4	Classify & recognize shapes of orbitals.

Analytical Chemistry

At the end of the course, students will be able to -----	
CO 1	Get knowledge of methods of analysis and able to solve numerical problems.
CO 2	Know chromatographic techniques like paper and TLC.
CO 3	Learn acid-based titrations & complexometric titrations and choice of indicators.
CO 4	Use water analysis and fertilizer analysis (analysis of Nitrogen, Phosphorus & Potassium, etc)

Organic Chemistry

At the end of the course, students will be able to -----

CO 1	Understand basic organic chemistry, like bond fission, reactive intermediates and their reactions.
CO 2	Understand optical and geometrical isomerisms and nomenclature of stereoisomers.
CO 3	Learn modern theory of aromaticity, arometic electrophilic substitution reactions.
CO 4	Know synthesis, chemical properties of cycloalkanes, cycloalkenes and alkydienes.

Physical Chemistry

At the end of the course, students will be able to -----	
CO 1	Understand different laws of thermodynamics and its importance in the chemistry, enthalpy of reaction and its types, concepts of entropy and cornot cycle.
CO 2	Learn chemical equilibrium along with the concept of free energy, standard free energy and its importance in the feasibility of chemical reactions and Le Chateliers principles.
CO 3	Know kinetic theory of gases and kinetic gas equation along with the equations likes real gases from ideal behaviour, causes of derivations from gas laws.

CO 4	Understand relations between Vander Waals and critical constants, importance of critical phenomenon.

B. Sc. II Semester III and IV

Inorganic Chemistry

At the end of the course, students will be able to -----	
CO 1	Understand orbital splitting pattern in different geometries like octahedral and tetrahedral.
CO 2	Become familiar with the applications of coordination compounds to be able to predict the geometries of simple molecules.
CO 3	Know Isomers.
CO 4	Learn VBT W.R.T. CN 4 & 6 for Cu, Fe, Ni & Co.

Industrial Chemistry

At the end of the course, students will be able to -----	
CO 1	Get knowledge of classical & industrial chemistry, unit operations a n d unit processes.
CO 2	Acquire knowledge of corrosion & prevention of corrosion.
CO 4	Know about manufacturing process of paper industry.
CO 5	Learn about soaps & detergents with cleasing action of soap.

Organic Chemistry

At the end of the course, students will be able to -----	
CO 1	Get knowledge of monocarboxylic acids, dicarboxylic acids & unsaturated acids and substitution reactions in these.
CO 2	Know the preparation of amines and diazonium salts and their chemical properties.
CO 3	Understand carbonyl compounds, reactions of aldehydes and ketones.
CO 4	Know conformational isomerism and conformational analysis.

Physical Chemistry

At the end of the course, students will be able to -----	
CO 1	Acquire knowledge related to electrolytic conductors and conductivity-specific, equivalent and molar conductivity and also effect of dilution on weak and strong electrolytes along with Kohlrausch law and their applications and conductometric titrations
CO 2	Learn about physical properties of liquids such as surface tension, refractivity, viscosity and methods of determinations.
CO 3	Be familiar with basics of nuclear chemistry and understand the nuclear radiations, properties, and measurement methods of radiations.
CO 4	Understand the kinetics approach for third order reaction and their derivation along with theories of reaction rates.
CO 5	Gain knowledge of theory by solving numerical based on corresponding formulae.

B. Sc. III Semester V & VI Inorganic Chemistry

At the end of the course, students will be able to -----	
CO 1	Understand HSAB rule.
CO 2	Develop interest in the analysis of commercial samples.
CO 3	Learn different types of substitution reactions like SN1,SN2 etc.and difference between acid hydrolysis & base hydrolysis.
CO 4	Understand how metal ions take part in biological system and their concentration effect and physiological effect on biological system.

Organic Chemistry

At the end of the course, students will be able to -----	
CO 1	Acquires knowledge of electromagnetic spectrum and energy associated with it.
CO 2	Calculate λ max. values of dienes & enones, knowledge of IR spectrum, IR region, functional group recognisation.
CO 3	Understand shielding & deshielding effects, chemical shifts, δ values.
CO 4	Learn different types of fragmentation patterns & different types of ions formed.
CO 5	Establish structure of organic compound with the help of IR, UV, NMR spectral data.

Industrial Chemistry

At the end of the course, students will be able to -----	
CO 1	Know complete manufacturing process of sugar in India & ethyl alcohol.

CO 2	Understand the industrial manufacturing process of ammonia, sulphuric acid, nitric acid and sodium carbonate.
CO 3	Learn about polymers, their classification and synthesis.
CO 4	Gain knowledge of petroleum industry and use of ecofriendly fuels.

Physical Chemistry

At the end of the course, students will be able to -----	
CO 1	Learn classical and quantum mechanics by studying the concepts likes black body radiation, Compton effect, Photoelectric effect, Heisenberg uncertainty principle and Hamiltonian operator.
CO 2	Acquire knowledge of Schrodinger wave equation, particles in one dimensional box with the expiations of physical interpretation wave function.
CO 3	Know aspects of electromagnetic radiation, spectrum, interaction with matter.
CO 4	Developing the concept of basic of photochemistry and photochemical reactions, Jablonski diagram along with various luminescence.
CO 5	Learn new concepts in electromotive force and its types.

B.Sc. Mathematics
Programme Specific Outcomes

After the completion of the three year degree programme in Mathematics, students will be able to ------	
PSO 1	**Learn to identify various areas of science, technology, industry etc. where the knowledge and skill imparted to them can be useful.**
PSO 2	**Select a specific problem from real life scenario as per their liking and his/her skill sets and knowledge.**
PSO 3	**Analyze the problem and propose a solution method and finalise the solution and the process of solution in consultation with peer group and faculty.**
PSO 4	**Develop solution methodology and necessary software if required and prepare reports.**

B.Sc. Mathematics
Course Outcomes

B.Sc. I Semester-I

Mathematics Paper – I Complex Numbers and Algebra

At the end of the course, students will be able to -----	
CO 1	Learn direct circular functions and hyperbolic functions, examples and DeMoivre's Theorem
CO 2	Understand definitions of Hermitian and Skew Hermitian matrices.
CO 3	Apply the concept of Eigen values, Eigen vectors and the characteristic equation of a matrix.
CO 4	Grasp the concept of quadratic forms corresponding to a symmetric matrix with examples.

Mathematics Paper – II Calculus

At the end of the course, students will be able to -----	
CO 1	Learn Leibnitz's theorem with examples
CO 2	Understand the concept Taylor's Theorem, Maclaurin's Theorem, Taylor's Series and Maclaurin's Series.

CO 3	Know definition of Radius of Curvature, limit of a function of two variables, continuity of a function of two variables.
CO 4	Grasp the concept Euler's Theorem on homogeneous functions of two variables.

B.Sc –I Semester – II

Mathematics Paper – III Geometry

At the end of the course, students will be able to -----	
CO 1	Get aquainted withTranslation and Rotation,Relation between Cartesian and Polar coordinates.
CO 2	Understand the meaning and Polar equations of a circle.
CO 3	Understand the concept , definitions of Cone, Vertex and Generator
CO 4	Learn method of Intersection of (i) two sphere (ii) a sphere and plane.

Mathematics Paper – IV Differential Equations

At the end of the course, students will be able to -----	
CO 1	Acquire the concept integration factors with rules.
CO 2	Learn basic concepts of solution of auxiliary equation with real and non – repeated roots.
CO 3	Understand the concept of equations that can be factorized.
CO 4	Grasp Clairaut's form, special forms reducible to Clairaut's form.

MATHEMATICS PRACTICAL

Computational Mathematics Laboratory CML- I

At the end of the course, students will be able to -----	
CO 1	Analyse problems from mathematical standpoint.
CO 2	Acquire and master some fundamental skillsrequired for undergraduate mathematics courses and polishing the skills which they have already acquired.
CO 3	Learn techniques of designing solution strategies and choosing optimal strategy.
CO 4	Perform calculationswith tenacity and habit of hard work through various tasks assigned to them.

B.Sc –II Semester – III

Mathematics Paper – V Differential Calculus

At the end of the course, students will be able to -----

CO 1	Acquire the concept of ε - δ definition of the limit of a function of one variable.
CO 2	Learn basic concepts, properties of limits, definition of Jacobian with examples.
CO 3	Understand the concept of definition of maximum, minimum and stationary values of function of two variables.
CO 4	Grasp differentiation of vector.

Mathematics Paper-VI Differential Equations

At the end of the course, students will be able to -----	
CO 1	Understand general form of homogeneous linear equations of higher order and its solution.
CO 2	Solve system of linear homogeneous equations and linear non-homogeneous equations.
CO 3	Understand the concept of methods of solving simultaneous differential equations.
CO 4	Grasp geometrical relation between total differential equations.

B.Sc –II Semester – IV

Mathematics Paper – VII Integral Calculus

At the end of the course, students will be able to -----	
CO 1	Acquire the concept definition of Gamma function.
CO 2	Learn definition of Beta function, properties of Beta function.
CO 3	Understand the concept of Double Integral Evaluation of double integrals.
CO 4	Grasp fefinition of Fourier series with Dirichlet condition.

Mathematics Paper – VIII Discrete Mathematics

At the end of the course, students will be able to -----	
CO 1	Acquire the concept of product sets, relations, inverse relation, composition of relations and matrices.
CO 2	Learn basic concepts of division algorithm for positive integers (with proof).
CO 3	Understand the concept of logical propositions (statements).
CO 4	Grasp graphs and multi-graphs, degree of a vertex.

MATHEMATICS PRACTICAL

Computational Mathematics Laboratory CML- II

At the end of the course, students will be able to -----

CO 1	Apply theoretical concepts studied in theory papers to solve practical problems.
CO 2	Acquire the skills to design solutions for complex problems and strategies with team work.
CO 3	Present ideas and solutions in a class for open discussion.

Computational Mathematics Laboratory CML- III

At the end of the course, students will be able to -----	
CO 1	Get acquainted with the need for computer based solutions in mathematical problem solving with concrete examples.
CO 2	Learn various techniques of computer based problem solving and the concept of flowchart, pseudocode and algorithm.
CO 3	Get hands-on experience of the programming language C and learn to develop simple programs in C using basic constructs of C.

B.Sc –III Semester– V

Mathematics Paper – IX Real Analysis

At the end of the course, students will be able to -----	
CO 1	Acquire the concept of definition of Cartesian product, function, extension and restriction of functions onto function.
CO 2	Learn basic concepts of Riemann integrability & integrals of bounded functions over bounded intervals.
CO 3	Understand concept of Test for convergence at the left end: positive integrand.
CO 4	Grasp the expansion of Test for absolute convergence of the integral of a product.

Mathematics Paper – X Modern Algebra

At the end of the course, students will be able to -----	
CO 1	Learn basic concepts of group and rings with examples.
CO 2	Understand the difference between the concepts- Group and Ring.
CO 3	Apply fundamental theorem, isomorphism theorems of groups to prove these theorems for Ring.
CO 4	Understand the concepts of polynomial rings and unique factorization domain

Mathematics Paper – XI Partial Differential Equations

At the end of the course, students will be able to -----	
CO 1	Partial differential equation, order of the partial differential equation, degree of the partial differential equation.
CO 2	Formulate solution or integral of a partial differential equation.
CO 3	Learn solution of linear homogeneous partial differential equation with constant coefficients.

CO 4	Understand non-homogeneous linear partial differential equation with constant coefficients.

Mathematics Paper – XII Numerical Methods- I

At the end of the course, students will be able to -----	
CO 1	Understand the concept of introduction: polynomial equations, algebraic equations and their roots and iterative methods.
CO 2	Grasp the concept of system of linear equations as a vector equation Ax = b, augmented matrix.
CO 3	Understand Gauss-Seidel method: formula and examples.
CO 4	learn eigenvalues and eigenvectors of a real matrix.

B.Sc –III Semester – VI

Mathematics Paper - XIII Metric Spaces

At the end of the course, students will be able to -----	
CO 1	Acquire knowledge of notion of metric space, open sets and closed sets.
CO 2	Understand properties of continuous functions on metric spaces.
CO 3	Learn the notion of metric space to continuous functions on metric spaces.
CO 4	Understand basic concepts of connectedness, completeness and compactness of metric spaces.

Mathematics Paper – XIV Linear Algebra

At the end of the course, students will be able to -----	
CO 1	Learn the notion of vector space, subspace and basis.
CO 2	Understand the concept of linear transformation and its application to real life situations.
CO 3	Learn the meaning of work out algebra of linear transformations.
CO 4	Learn the concept of work out eigen values, eigen vectors and its connection with real life situations.

Mathematics Paper – XV Complex Analysis

At the end of the course, students will be able to -----	
CO 1	Learn basic concepts of functions of complex variable.
CO 2	Be introduced to concept of analytic functions.
CO 3	Learn the concept of complex integration and basic results thereof.
CO 4	Learn the concept of sequence and series of complex variable.

Mathematics Paper – XVI Numerical Methods- II

At the end of the course, students will be able to -----	
CO 1	Learn Newton's forward differences and forward difference table.
CO 2	Understand Lagrangian interpolating polynomial (formula only) with examples.

CO 3	Learn the meaning of numerical differentiation based on interpolation polynomial.
CO 4	Learn the concept of second order Runge-Kutta method (formula only) with examples.

MATHEMATICS PRACTICAL

(Operations Research Techniques) Computational Mathematics Laboratory CML- IV

At the end of the course, students will be able to -----	
CO 1	Understand the meaning and scope of Operations Research along with historical background.
CO 2	Apply linear programming methods to solve practical problems.
CO 3	Learn to use transportation problem solving techniques for logistics related Problems.
CO 4	Learn to use scheduling techniques to solve process scheduling problems in industrial projects.

Numerical Methods

At the end of the course, students will be able to -----	
CO 1	Get a broad perspective of numerical computational methods and their practical use.
CO 2	Get acquainted with various numerical methods for different categories of mathematical problems.
CO 3	Learn to solve a variety of problems and gain detailed insight into numerical computation techniques.
CO 4	Develop flowcharts and algorithms for each computational method and get oriented for implementing numerical techniques with the help of computer languages.

Numerical Recipes in C++, Scilab

At the end of the course, students will be able to -----	
CO 1	Understand basic concept of Object Oriented Programming (OOP) and techniques
CO 2	Learn to create, objects, encapsulate data, creation/destruction operators.
CO 3	Implement OOP for mathematical problem solving.
CO 4	Get familiar with scientific computing concept and software Scilab. Using Scilab toolkits for scientific applications involving complex mathematical computations for image processing , sound processing , 2-D , 3-D data visualization.

PROJECT, STUDY TOUR & VIVA VOCE

At the end of the course, students will be able to -----

CO 1	Identify various areas in science, technology and many other professional environments where mathematical methodsform core of the processes.
CO 2	Select some practical problem and apply mathematical methods for its solution.
CO 3	Undertake projects where various mathematical and computer based problem solving skills are applied to solve a specific problem.
CO 4	Visit various organizations/institutions where mathematical and computational methods form a core of various activities and processes and get a practical idea and insight into mathematicalmethods for practical problem solving

B.Sc.I & II Statistics
Course Outcomes

B.Sc. I Descriptive Statistics– I	
At the end of the course, students will be able to -----	
CO 1	Understand statistical population, sample, data collection and its representation by tables, diagrams and graphs.
CO 2	Learn the concept of central tendency, dispersion, skewness and kurtosis of a variable.
CO 3	Measure the concepts, its computations and interpretations of these values.
CO 4	Know the concept of association between attributes, measurement of association, its computations and interpretations of these values.
B.Sc. I Elementary Probability Theory	
At the end of the course, students will be able to -----	
CO 1	Understand the concept of uncertainty.
CO 2	Measure uncertainty by using probability measures.
CO 3	Learn the concept of conditional occurrence of uncertain events.
CO 4	Measure the conditional occurrence of uncertain events and its interpretations.
B.Sc. I Descriptive Statistics- II	
At the end of the course, students will be able to -----	
CO 1	Understanding the concept of bivariate data.
CO 2	Measure correlation between two variables and interpretation of its values.
CO 3	Establish linear regression (if exists) between dependent and independent variables and estimate value of dependent variable for given value of independent variable.
CO 4	Understand the concept of rise or fall in prices or consumption or values of commodities in the current year with respect to base year.
CO 5	Measure rise or fall in above by using various indices and their interpretations.
B.Sc. I Discrete Probability Distributions	
At the end of the course, students will be able to -----	
CO 1	Understand the concept of discrete random variable on finite sample space and its probability distribution.
CO 2	Apply some standard discrete distributions in real life situations.
CO 3	Understand the concept of discrete bivariate random variable on finite sample space and its joint probability distribution.

CO 4	Learn concept of independence, covariance, correlation between two discrete random variables, its computation and interpretations.
B.Sc. II Probability Distributions–I	
At the end of the course, students will be able to -----	
CO 1	Apply standard distributions defined on countable infinite support.
CO 2	Understand the difference between discrete and continuous distribution.
CO 3	Obtain conditional and marginal probability distributions.
CO 4	Learn the concept of transformation of univariate and bivariate continuous random variables and obtain probability densities of transformed random variables.
B.Sc. II Statistical Methods-I	
At the end of the course, students will be able to -----	
CO 1	Understand the concept of multiple regression plane.
CO 2	Estimate regression plane of dependent variable on two or more independent variables and estimate value of dependent variable and for given values of independent variables.
CO 3	Learn the concept of partial correlation between two variables, its computation and interpretation.
CO 4	Understand the basics of sample survey.
CO 5	Become aware of vital statistics such as concept of mortality rate, fertility rate and population growth rates, computation and interpretation.
B.Sc. II Probability Distributions-II	
At the end of the course, students will be able to -----	
CO 1	Apply some standard continuous probability distributions in real life situations.
CO 2	Obtain various measures for above distributions.
CO 3	Know interrelationship between above distributions.
CO 4	Apply sampling distributions in real life situations for testing independence of attributes, goodness of fit test for given distribution, equality of means and variances of two populations.
B.Sc. II Statistical Methods-II	
At the end of the course, students will be able to -----	
CO 1	Understand the concept of time series, its components.
CO 2	Estimate secular trend and seasonal index from time series data.
CO 3	Understand the concept of chance and assignable cause in production process.
CO 4	Apply of Statistical Quality Control techniques such as control charts for variables and attributes to monitor assignable cause in a process.
CO 5	Understand the concept of testing of statistical hypothesis and its application for the small sample tests and large sample tests in various situations.

COMMERCE

M.Com. Costing and Accountancy

Programme Specific Outcomes

After the completion of the two year programme, students will be able to -----.

PSO1	**Gain knowledge and skills of accounting, costing, stress and conflict management, strategic management.**
PSO2	**Understand and use cost accounting and its practical applications.**
PSO3	**Know international accounting standards.**
PSO4	**Develop professional aptitude.**
PSO5	**Acquire research-oriented skills and attitude.**

M.Com. Costing and Accountancy
Course Outcomes

M.Com. I Sem. I & II

Paper- I Business Management and Organizational Behaviour

At the end of the courses, students will be able to -----	
CO 1	Learn strategies of business management.
CO 2	Gain knowledge about organizational behaviour.
CO 3	Acquire knowledge about individual and group behaviour.
CO 4	Understand the ethical behavior in various areas of management.

Managerial Economics- Paper I and International Business

At the end of the courses, students will be able to -----	
CO1	Understand the meaning, nature,scope and importance of managerial economics.
CO2	Understand the demand analysis andconsumer behaviour.
CO3	Understand the theory of production, price determination and pricing practices.
CO4	Realise the theory of business cycles.
CO5	Understand the concept of inflation.

Advanced Costing I & II

At the end of the courses, students will be able to -----	
CO1	Understand cost accounting and its practical applications.
CO2	Learn calculation of cost of products and services in various types of organizations.
CO3	Acquire the skills for increasing process and production efficiency.
CO4	Learn fixing of selling price of product and service.

Advanced Accountancy I & II

At the end of the courses, students will be able to -----	
CO1	Know the application of accounting standards of different organizations.
CO2	Understand accounting procedures of service industry.
CO3	Learn to prepare consolidated balance sheet of holding company.
CO4	Able to calculate the profitability and liquidity of businesses.

M.Com II Sem. III &IV

Business Finance – Paper I & II

At the end of the courses, students will be able to -----	
CO1	Understand the environment of business finance, its goals and functions.
CO2	Acquire the knowledge of capital structure, primary market and secondary capital market.
CO3	Learn about mutual fund, portfolio management and investment decisions.
CO4	Able to choose the right source of finance.

Management Accounting

At the end of the course, students will be able to -----	
CO1	Understand the basic concepts in management accounting.
CO2	Gain working knowledge of financial statement & working capital.
CO3	Learn management accounting tools useful for managerial decisions.
CO4	Know recent trends in practice of management accounting according to accounting standards.

Advanced Costing – Paper V & VI

Advanced Costing – Paper VII & VIII

At the end of the courses, students will be able to -----	
CO1	Learn cost accounting methods & practical applications.
CO2	Understand the standards of different elements of cost- materials, labour and overheads.
CO3	Acquire knowledge of inventory management.
CO4	Learn research methodology and able to do research in businesses.

Advanced Accountancy – Paper V & VI

Advanced Accountancy - Paper VII & VIII

At the end of the courses, students will be able to -----	
CO1	Able to learn audit concepts, procedure of auditing audit, appointment of auditor, qualifications and procedures.
CO2	Learn the concepts in income tax, sources and heads of taxable income.
CO3	Calculate tax on income from salary, house property, and business income.
CO4	Learn research methodology and able to do research in businesses.

B.Com. Commerce
Programme Specific Outcomes

After the completion of the three year programme, students will be able to -----.	
PSO1	**Gain knowledge of accounting, insurance, marketing, finance, human resource management, laws, etc.**
PSO2	**Acquire and use skills of costing and auditing.**
PSO3	**Develop entrepreneurial skills.**
PSO4	**Acquire and use of knowledge business statistical tools.**
PSO5	**Learn management skills- disaster, time, stress, event, etc.**
PSO6	**Develop leadership qualities and imbibe ethical behaviour.**

B.Com. Commerce
Course Outcomes

B.Com. I Sem. I & II

Financial Accounting- Paper I & II

At the end of the courses, students will be able to -----	
CO1	Understand accounting concepts & conventions, standards & its importance.
CO2	Gain working knowledge of generally accepted accounting procedures.
CO3	Learn the skills & techniques of accounting various entities.
CO4	Know recent trends in the practice of accounting.

Management Principles and Applications -Paper I & II

At the end of the courses, students will be able to -----

CO1	Study various concepts, types and principles of management.
CO2	Understand different theories by various thinkers.
CO3	Learn organizing process, elements, planning and decision making.
CO4	Acquire motivation and leadership concepts and theories.
CO5	Know emerging issues in management.

Insurance

At the end of the course, students will be able to -----	
CO1	Study various concepts, types and clauses in insurance.
CO2	Know the various risks covered by insurance.
CO3	Understand the procedure of taking insurance policies and the procedure for making claims.
CO4	Understand career opportunities in insurance sector.

Principles of Marketing-Paper I & II

At the end of the courses, students will be able to -----	
CO1	Inculcate good behavior while selling and purchasing products.
CO2	Learn the importance of marketing in the success of business.
CO3	Know online marketing, green marketing and social marketing.
CO4	Acquire knowledge of 4 P's of marketing.
CO5	Become aware of environment-friendly marketing activities.

Business Communication – Paper I & II

At the end of the courses, students will be able to -----	
CO1	Acquire English competence.
CO2	Effective business communication skills.
CO3	Effective business correspondence skills.
CO4	Inculcate human values through prose and poetry.

Micro Economics – Paper I & II

At the end of the courses, students will be able to -----	
CO1	Learn the concepts of micro-economics dealing with consumer behaviour.
CO2	Understand the supply side of market through the production and the cost of behaviour of firm.
CO3	Understand the link between micro economics and business decisions.
CO4	Realise the importance of demandforecasting in business decision making tand the market systems.

B.Com. II Sem. I & II

Corporate Accounting – Paper I & II

At the end of the courses, students will be able to -----	
CO1	Explain accounting entries of issue & forfeiture of shares & re-issue of forfeited shares, discuss accounting treatment for redemption of preference shares & buy back of shares.
CO2	Demonstrate accounting for issue of debentures and redemption of debentures.
CO3	Simulate practice of preparing financial statements as per the provisions of Indian Company Act 2013.
CO4	Practice the fundamental accounting process on Tally ERP.

Fundamentals of Entrepreneurship – Paper I & II

At the end of the courses, students will be able to -----	
CO 1	Understand entrepreneurship- functions and obstacles.
CO 2	Learn about entrepreneurship development and theories of different thinkers.
CO 3	Take interest in micro, small and medium size enterprises.
CO 4	Gain knowledge about recent trends in entrepreneurship.

Business Statistics – Paper I

At the end of the course, students will be able to -----	
CO 1	Understand statistical population, sample, data collection and its representation by tables, diagrams and graphs and awareness about using statistical techniques in business.
CO 2	Understand the concept of central tendency, dispersion of a variable, measuring of these, computations and interpretations of the values.
CO 3	Understand the concept of bivariate data.
CO 4	Measure correlation between two variables and interpretation of values.
CO 5	Obtain the linear regression between dependent and independent variables, estimate value of dependent variable for given value of independent variable.

Macro Economics –Paper I & II

At the end of the courses, students will be able to -----	
CO 1	Understand the basic theoretical framework underlying in the fieldof macro economics.
CO 2	Realize the concept of national income and its accounting methods.
CO 3	Know the concept of value of money, inflation, index number and monetary policy.
CO 4	Learn about Say's law of market, Keynesian theory of employment and multiplier.

Money and Financial System- Paper I & II

At the end of the courses, students will be able to -----	
CO 1	Understand and be able to use e-banking services.
CO 2	Learn various aspects of RBI, it's monetary policy and be able to interpret the same.
CO 3	Develop an understanding about the structure of India's financial system and the functioning of AIFIs.

English for Business Communication – Paper 3 & 4

At the end of the courses, students will be able to -----	
CO 1	Develop English communication skills.
CO 2	Learn English for competitive examinations.
CO 3	Learn e-Communication.
CO 4	Develop employability skills.

B.Com.II Business Statistics Paper-II

At the end of the course, students will be able to -----	
CO 1	Understand the concept of uncertainty and its measurement.
CO 2	Understand the concept of conditional occurrence of uncertain events, its measurement and interpretation.

CO 3	Understand the concept of discrete random variable and application of binomial distribution in real life situations.
CO 4	Understand the concept of continuous random variable and application of normal distribution in real life situations.
CO 5	Understand the concept of time series, its components, estimation of secular trend and seasonal index from time series data.
CO 6	Understand the concept of rise or fall in prices or consumption or values of commodities in current year with respect to base year.
CO 7	Measure rise or fall in these entities by using various indices and their interpretations.

B.Com. III Sem.I & II

Modern Management Practices – Paper I & II

At the end of the courses, students will be able to -----	
CO 1	Understand various modern management practices and contribution of different thinkers.
CO 2	Know the emotional and social intelligence in management.
CO 3	Learn time, stress and disaster management.
CO 4	Learned how to behave ethically.

Business Regulatory Framework- Paper I & II

At the end of the courses, students will be able to -----	
CO 1	Understand the various concepts related to business laws.
CO 2	Study various Acts such as Contract Act, Company Act, Labour Act and GST.
CO 3	Able to calculate GST.
CO 4	Able to understand legal business environment.

Cooperative Development – Paper I & II

At the end of the courses, students will be able to -----	
CO 1	Understand the principles and practice of cooperation.
CO 2	Learn various benefits of cooperation.
CO 3	Analyze various committee reports on cooperative sector.
CO 4	tand the situation of cooperative marketing system.

Business Environment - Paper I & II

At the end of the courses, students will be able to -----	
CO 1	Know the concept LPG.
CO 2	Become aware about economic planning and service sector.
CO 3	Learn about foreign capital and MNCs.
CO 4	Know various international institutes.

Advanced Accountancy – Paper I & II (Optional)

At the end of the courses, students will be able to -----	
CO 1	Gain working knowledge of generally accepted accounting & auditing procedures.
CO 2	Acquire conceptual clarity about insurance claims & computation, farm accounting, hire purchase system and bank financial statement.
CO 3	Know financial provisions of banking, law scope & objectives of

	management accounting & cost accounting.
CO 4	To learn accounting process of about business events.

Advanced Costing – Paper I & II (Optional)

At the end of the courses, students will be able to -----	
CO 1	Understand basic concept of cost accounting.
CO 2	Calculation of cost.
CO 3	Understand cost accounting principles in cost accounting of materials.
CO 4	Know the application of cost accounting in calculation of labour cost.

Industrial Management – Paper I & II (Optional)

At the end of the courses, students will be able to -----	
CO 1	Acquire knowledge about industrial management.
CO 2	Learn work environment and plant maintenance.
CO 3	Learn financial management, production planning and control, productivity.
CO 4	Understand the role of human resource in any organization and role of HR in acquiring and retaining human capital.
CO 4	Learned the importance of human relations to keep peace in industry, society and family as well.

ARTS

M.A. English

Programme Specific Outcomes

After the completion of two year post-graduate degree programme in English, students will be able to -------	
PSO 1	**Understand major literary trends and movements in World Literature.**
PSO 2	**Develop acumen to appreciate, interpret and critically evaluate literary texts.**
PSO 3	**Learn and apply various theoretical approaches in literary studies.**
PSO 4	**Interpret, analyze and evaluate different varieties of written and spoken English.**
PSO 5	**Analyze unseen poems and prose texts stylistically.**

M.A. English

Course Outcomes

M.A. I Semester I & II

C-1 Poetry in English up to 19th Century

C-4 Poetry in English: Modern and Postmodern

At the end of the course, students will be able to -----	
CO 1	Acquire knowledge of poetry and poetic traditions across cultures and nationalities.
CO 2	Compare and contrast poetry of different countries and cultures and understand the universal appeal of the same.
CO 3	Interpret and aesthetically appreciate poems.
CO 4	Use poetic devices learnt in the classroom in their poetry.

C-2 Fiction in English up to 19th Century

C-5 Fiction in English: Modern and Postmodern

At the end of the course, students will be able to -----	
CO 1	Acquire knowledge of fiction and its aspects.

CO 2	Explain socio-cultural context of fiction across cultures and nationalities.
CO 3	Develop sensitivity towards human misery and suffering across cultures.
CO 4	Learn to write short narrative pieces.

C-3 Introduction to Modern Linguistics

C-6 Sociolinguistics and Stylistics

At the end of the course, students will be able to -----	
CO 1	Acquire knowledge of major concepts, theories and branches of linguistics.
CO 2	Apply the knowledge of linguistics in the use of language in day-to-day life.
CO 3	Apply knowledge of linguistics in the analysis of prose and poetry.
CO 4	Communicate with enhanced linguistic competence.

G1- E1 British Renaissance Literature

G1- E2 British Neoclassical and Romantic Literature

At the end of the course, students will be able to -----

CO 1	Acquire knowledge of British literature across the ages.
CO 2	Understand the contribution of British literature to world literature.
CO 3	Understand British values, for instance, freedom and equality.
CO 4	Develop linguistic and literary competence.

M.A. II Semester III & IV

C-7 Drama up to the end of 19th Century

C-9 Drama in English: Modern and Postmodern

At the end of the course, students will be able to -----	
CO 1	Gain knowledge about world drama.
CO 2	Understand different traditions of dramatic art.
CO 3	Understand drama as a performing art.
CO 4	Apply knowledge of drama in actual analysis of plays.

C-8 & C-10 Critical Theories Paper-I & II

	At the end of the course, students will be able to -----
CO 1	Understand different approaches and theories in literary studies.
CO 2	Comprehend differences between various approaches and theories.
CO 3	Apply theoretical knowledge in the analysis of literary texts.
CO 4	Develop critical thinking abilities.

GI-E3 Victorian and Early Modern Period

At the end of the course, students will be able to -----	
CO 1	Understand aspects of Victorian and early modern British literature.
CO 2	Assess the changing trends in Victorian and early modern British literature.
CO 3	Interpret and critically appreciate Victorian and early modern British poetry.
CO 4	Develop the skill of writing poetry.

GI- E4 Modern and Postmodern British Literature

At the end of the course, students will be able to -----	
CO 1	Understand aspects of modern and postmodern British literature.
CO 2	Assess the changing trends modern and postmodern British literature.
CO 3	Acquire critical attitude and contemporary values.
CO 4	Develop the skill of writing literature.

G1-E5 Special Author- Kingsley Amis

At the end of the course, students will be able to -----	
CO 1	Comprehend plot structures, themes and characters in the prescribed texts.
CO 2	Understand the philosophy of life of Kingsley Amis.
CO 3	Appreciate the realistic element in the works of Kingsley Amis.
CO 4	Learn style of novelistic writing.

G1-E6 British Women Writers

At the end of the course, students will be able to -----	
CO 1	Comprehend plot structures, themes and characters in the prescribed texts.
CO 2	Understand feministic elements in women's writings.
CO 3	Compare women's literature with men's literature with respect to structure, philosophy and experiences.
CO 4	Appreciate women writers'contribution in world literature.

2016-17 M.A. I Semester I & II

C-II & C- V Literature in English-I & II Novel

At the end of the course, students will be able to -----	
CO 1	Understand the prescribed literary texts.
CO 2	Gain knowledge about socio-cultural ethos across cultures.

CO 3	Interpret and aesthetically appreciate novels.
CO 4	Learn novelistic devices.

C-III & C- VI Basic Concepts in Linguistics

At the end of the course, students will be able to -----	
CO 1	Acquire knowledge of major concepts, theories and branches of linguistics.
CO 2	Learn cohesive devices and discource analysis.
CO 3	Apply knowledge of linguistics in the analysis of prose and poetry.
CO 4	Communicate with enhanced linguistic competence.

E-3 Paper IX & X Indian English Novel- I & II

At the end of the course, students will be able to -----	
CO 1	Comprehend plot structures, themes and characters in the prescribed texts.
CO 2	Understand the distinctiveness of Indian English novelists.
CO 3	Appreciate the contemporary issues in the novels.
CO 4	Learn the style of novelistic writing.

M.A.II 2016-17 to 2017-18

C-IX & C-XIII Literature in English Drama: I & II

At the end of the course, students will be able to -----	
CO 1	Understand plot structures, themes and characters in the prescribed texts.
CO 2	Understand world drama.
CO 3	Appreciate the socio-cultural contexts.
CO 4	Acquire skills of dramatics.

C-X & C-XIV Critical Theories: I & II

At the end of the course, students will be able to -----	
CO 1	Understand different approaches and theories in literary studies.
CO 2	Comprehend differences between various approaches and theories.
CO 3	Apply theoretical knowledge in the analysis of literary texts.
CO 4	Develop critical thinking abilities.

E-3 XII & XVI Indian English Prose and Drama

At the end of the course, students will be able to -----	
CO 1	Comprehend plot structures, themes and characters in the prescribed texts.
CO 2	Understand the distinctiveness of Indian English writers.
CO 3	Undertand Indian dramatic theories.
CO 4	Develop critical and creative aptitude.

B.A. English

Programme Specific Outcomes

After the completion of three year degree programme in English, students will be able to -------	
PSO 1	**Understand different genres of literature.**
PSO 2	**Analyze and critically appreciate literary works.**
PSO 3	**Learn how to do scientific study of language.**
PSO 4	**Enhance English communicative competence.**

B.A. English

Course Outcomes

B.A. I (Opt.) Semester I & II

DSC-A3 & DSC-A15 Modern Indian Writing in English Translation

At the end of the course, students will be able to -----	
CO 1	Learn the concept and significance of translation.
CO 2	Understand modern Indian writing in English translation.
CO 3	Learn the skill of translation of poetry, plays and short-stories.
CO 4	Understand the value of translation in cultural transaction.

B.A. II (Opt.) Semester III & IV DSC-C5 & DSC-C29 Literature and Cinema

At the end of the course, students will be able to -----	
CO 1	Define the relationship between literature and cinema.
CO 2	Acquire knowledge of film adaptation.
CO 3	Gain knowledge of cinematic techniques.
CO 4	Learn textual and film aesthetics.

DSE-C6 & DSC-C30 Partition Literature

At the end of the course, students will be able to -----	
CO 1	Understand the political dimensions of partition literature.
CO 2	Acquire knowledge of partition literature.
CO 3	Understand short stories, poetry and fiction based on partition theme.
CO 4	Imbibe values of non-violence and co-existence.

B.A.III (Spl.) Semester V & VI

DSC-E11 & DSC-E136 Introduction to Literary Criticism

At the end of the course, students will be able to -----	
CO 1	Acquire knowledge of key concepts, trends and movements in literary criticism.
CO 2	Define the difference between literary creation and literary criticism.

CO 3	Learn literary devices and their application.
CO 4	Learn to critically appreciate literary works.

DSC-E12 & DSC-E137 English Poetry

At the end of the course, students will be able to -----	
CO 1	Obtain knowledge of various types of poetry.
CO 2	Learn the use of poetic devices.
CO 3	Acquire skills of critical analysis of poetry.
CO 4	Understand the uniqueness and cultural value of poetry.

DSC- E13 & DSC-E138 English Drama

At the end of the course, students will be able to -----	
CO 1	Define drama and understand its features.
CO 2	Understand types of drama.
CO 3	Acquire skills of dramatics.
CO 4	Imbibe human values through dramatic art.

DSC- E14 & DSC-E139 English Novel

	At the end of the course, students will be able to -----
CO 1	Define the concept of *novel* and understand its features.
CO 2	Understand types of novels.
CO 3	Learn novelistic devices such as irony and satire.
CO 4	Develop sensitivity towards human misery and suffering.

DSC-E15 & DSC-E140 Language and Linguistics

At the end of the course, students will be able to -----	
CO 1	Understand linguistics as a branch of science.
CO 2	Learn the science of speech sounds, word formation and sentence structures.
CO 3	Apply linguistic knowledge in day-to-day use of English.
CO 4	Develop competence in English language.

2016-17 to 2017-18 B.A. I (Opt.) Semester I & II

Paper I & II Introduction to English Literature: The Short Story and Novel

At the end of the course, students will be able to -----	
CO 1	Learn the concept of Short Story and Novel.
CO 2	Understand the difference between Short Story and Novel.
CO 3	Learn the presribed short stories and the novel
CO 4	Develop literary sensibility.

2016-17 to 2018-19 B.A. II (Opt.) Semester III & IV

Paper III & V Modern English Literature

At the end of the course, students will be able to -----	
CO 1	Understand modern world poetry (prescribed texts).
CO 2	Understand modern drama (prescribed text).
CO 3	Develop literary and linguistic skills.
CO 4	Develop literary sensibility.

2016-17 to 2018-19 B.A. II (Opt.) Semester III & IV

Paper IV & VI Indian English Writing

At the end of the course, students will be able to -----	
CO 1	Understand prescribed literary texts.
CO 2	Understand the features of Indian Writing in English.
CO 3	Know the contribution of Indian writers to world literature.
CO 4	Develop literary sensibility.

2016-17 to 2019-20 B.A. III (Spl.) Semester V & VI

Paper VII & XII Literary Criticism and Critical Appreciation

At the end of the course, students will be able to -----	
CO 1	Understand key concepts, trends and movements in literary criticism.
CO 2	Learn various theories and approaches in literary studies.
CO 3	Learn literary devices and their application.
CO 4	Learn to critically appreciate literary works.

Paper VIII & XIII Understanding Poetry

At the end of the course, students will be able to -----	
CO 1	Gain knowledge of various types of poetry.
CO 2	Learn the prescribed poems.
CO 3	Acquire skills of critical analysis of poetry.
CO 4	Develop poetic sensibility.

Paper IX & XIV Understanding Drama

At the end of the course, students will be able to -----	
CO 1	Define drama and understand its features.
CO 2	Understand types of drama.
CO 3	Learn the prescribed plays along with the cultural ethos.
CO 4	Acquire skills of dramatics.

Paper X & XV Understanding Novel

At the end of the course, students will be able to -----	
CO 1	Define the concept of *novel* and understand its features.
CO 2	Understand types of novels.
CO 3	Learn the prescribed texts.
CO 4	Develop sensitivity towards human misery and suffering.

Paper XI & XVI The Structure and Function of Modern English

At the end of the course, students will be able to -----	
CO 1	Learn English phonology, morphology and syntax.
CO 2	Learn cohesive devices and discourse analysis.
CO 3	Apply linguistic knowledge in day-to-day use of English.
CO 4	Develop competence in English language.

B.A. I(AECC 1&2) B.Com.I (AECC A&B) & B.Sc. I (AECC A&B) Semester I & II

English Compulsory Courses- Ability Enhancement Compulsory Courses: English for Communication and Business Communication (B.Com.I)

At the end of the course, students will be able to -----	
CO 1	Develop English vocabulary and usage.
CO 2	Communicate in English- oral & written mode.
CO 3	Acquire employability skills.
CO 4	Learn to enjoy literary pieces.

B.A. II (AECC 3 & 4) and B.Com. II (AECC C & D) Semester III & IV

English Compulsory Courses: Ability Enhancement Compulsory Courses: English for Communication and Business Communication

At the end of the course, students will be able to -----	
CO 1	Understand the difference between oral and written English.
CO 2	Acquire advanced communication skills- oral & written mode.
CO 3	Develop skills of e-communication.
CO 4	Learn to enjoy literary pieces.

B.A. (AECC 5 & 6) & B.Sc. III (AECC C & D) Semester V & VI

English Compulsory Courses: Ability Enhancement Compulsory Course: English for Communication

At the end of the course, students will be able to -----	
CO 1	Learn employability skills such as interview techniques and group discussion.
CO 2	Learn English for competitive examinations.
CO 3	Learn professional writing skills such as media writing.
CO 4	Learn to enjoy literary pieces.

B.A. Geography
Programme Specific Outcomes

After the completion of three year degree programme in the subject of Geography, students will be able to ------	
PSO 1	**Understand different branches of physical and human Geography with their interdisciplinary approaches.**
PSO 2	**Understand the structure and composition of earth and its atmosphere and also the lithosphere, land forms, denudation and processes of their development.**
PSO 3	**Learn about the factors affecting distribution of population, patterns and functions of settlement and agriculture.**
PSO 4	**Understand importance of natural resources and find out the ways of their conservation.**
PSO 5	**Acquire skills in cartography, preparation of thematic maps, map reading and interpretation and use applications of GIS, GPS and remote sensing data for geographical study.**

B.A. Geography
Course Outcomes

B. A. I Sem. I DSC – 10 Physical Geography

At the end of the course, students will be able to -----	
CO 1	Know basic concepts of Physical Geography.

CO 2	Understand the nature of atmosphere and basics of temperature and atmospheric pressure.
CO 3	Have basic knowledge of interior of earth and internal forces.
CO 4	Learn processes behind the formation of fluvial cycle and landforms.
CO 5	Develop interest in landforms around and know the landforms seen in areas nearby.

B. A. I Sem.II DSC – B 24 Human Geography

At the end of the course, students will be able to -----	
CO 1	Know basic concepts of human geography.
CO 2	Develop interest in human imprints on Earth.
CO 3	Understand the concepts and theories of population.
CO 4	Learn about the settlements and their functions.
CO 5	Know about agriculture and its problems

B. A. II Sem. III Paper III Soil Geography

At the end of the course, students will be able to -----	
CO 1	Know the fundamental concepts of soil geography.
CO 2	Learn the process of soil formation, development and soil properties.
CO 3	Know classification characters and distribution of soils.
CO 4	Become aware about soil degradation and soil erosion.
CO 5	Know about conservation of soils and methods of soil management.

Paper - IV Resource Geography

At the end of the course, students will be able to -----	
CO 1	Understand the concept resource geography and classification of resources.
CO 2	Acquire knowledge about major resources with their distribution, utilization and problems.
CO 3	Learn about sustainable resource development.
CO 4	Familiarize with the cartographic techniques.

B. A. II Sem. IV Paper- V Oceanography

At the end of the course, students will be able to -----	
CO 1	Know oceanography as the fundamental branch of physical geography.
CO 2	Understand marine resources as the key resource for the development of the country.

CO 3	Draw maps of oceanic currents in Atlantic, Pacific and Indian ocean.
CO 4	Understand theoretical concepts regarding Hypsographic Curve, Wind Rose, Isohalines and Isotherms.

Paper -VI Agriculture Geography

At the end of the course, students will be able to -----	
CO 1	Understand the concept and development of agriculture and examine the role of agricultural determinants towards the changing cropping pattern.
CO 2	Know agricultural systems and land-use theory.
CO 3	Understand agricultural problems and sustainable development of agriculture.
CO 4	Familiarize with agricultural oncepts and modern technologies used in agriculture.

B. A. III SEM - V

E106 Paper VII- Evolution of Geographical Thought

At the end of the course, students will be able to -----	
CO 1	Understand the evolution of geographical thought.
CO 2	Analyze the recent trends in geography.
CO 3	Make use of various models of paradigms and debates in the geographical studies.
CO 4	Understand recent trends in geography.

E107 Paper VIII - Geography of India

At the end of the course, students will be able to -----	
CO 1	Understand the dimensions and physiography of India.
CO 2	Become aware about the climatic seasons in India.
CO 3	Get knowledge about soils, vegetations, drainage systems in India.
CO 4	Understand the importance of agriculture and industry in Indian economy.

E108 Paper No. IX Population Geography

At the end of the course, students will be able to -----	
CO 1	Understan population geography along with relevanc eof demographic data.

CO 2	Learn distribution and trends of population growth in the developed and less developed countries.
CO 3	Know the implications of population composition in different regions of the world.
CO 4	Appreciate contemporary issues in the field of population studies.

E231 Paper X Economic Geography

At the end of the course, students will be able to -----	
CO 1	Understand economic geography.
CO 2	Gain knowledge about locational factors of economic activities with special referenceto agriculture and industry.
CO 3	Learn basic concepts related to manufacturing industries (selected countries) of the world.
CO 4	Understand transport and trade.

DSE- E232 Paper XI Urban Geography

At the end of the course, students will be able to -----	
CO 1	Know the importance of urban settlements through urban geography.
CO 2	Understand the types of urban settlements, sites and situations.
CO 3	Familiar with the idea of relationship between human activities and urban development.
CO 4	Understand urban problems and handle present problematic situations in urban areas.
CO 5	Develop as a good urban planner and environmental conservator.

DSE-E233 or Paper XII Political Geography

At the end of the course, students will be able to -----	
CO 1	Become aware of political geography as a fundamental branch of Human Geography.
CO 2	Know concepts of political geography.
CO 3	Familiarize with the basics and fundamental concepts and theories of political geography.
CO 4	Become aware of resource conflicts and politics of displacement.

DSE-E234 Paper XIII or Practical Paper -I Fundamentals of Map Making and Map

At the end of the course, students will be able to -----	
CO 1	Understand map, concept of scale and projection.

CO 2	Know about analysis of landforms and its identification.
CO 3	Become aware of S.O.I.topomaps and I.M.D. weather maps and learn skills of mapinterpretation.
CO 4	Be familiar with cartographic techniques and methods used for representation of demographic and physio- socio-economic database.
CO 5	Familiarize with different cartographic techniques and methodsused for representation of demographic and physio- socio-economic database.

DSE-E235 or Paper XIV (Practical Paper -II), Advanced Tools, Techniques & Field Work

	At the end of the course, students will be able to -----
CO 1	Understand the importance of field work and learn advanced techniques in geography.
CO 2	Train in implementing modern tools and techniques in geography.
CO 3	Get knowledge about the use of computer for analysis of geographical data.
CO 4	Trained in instrumental survey.
CO 5	Be familiar with computer, GIS, GPS and remote sensing.

B.A. HINDI

Programme Specific Outcomes

PSO 1	**हिंदी भाषा के उद्भव ,विकास तथा विभिन्न रूपों का ज्ञान प्राप्त हुआ**
PSO 2	**सरकारी कार्यालयो में प्रयुक्त कार्यालयीन हिंदी का परिचय प्राप्त हुआ I**
PSO 3	**हिंदी गद्य और पद्य के विभिन्न साहित्यिक विधाओं से परिचय हुआ I**
PSO 4	**हिंदी साहित्य के अध्ययन से सामाजिक,नैतिक,राष्ट्रीय मुल्यों का विकास हुआ I**
PSO 5	**अनुवादक,राजभाषा अधिकारी, निवेदक, गीतकार, पटकथा लेखक, संवाददाता ,विज्ञापन लेखक, संपादक, प्रकाशक आदि पदों पर रोजगारों के अवसरों का ज्ञान हुआ I**
PSO 6	**अध्यापक,बँक ,रेल्वे,डाक विभाग, मंत्रालय आदी क्षेत्रो में रोजगार के अवसर I**

B.A. HINDI

Course Outcomes

B.A. I, Sem. I

Hindi (Compl.) सृजनात्मक लेखन Paper-A

	At the end of the course, students will be able to -----
CO 1	मौलिक वेतना का परिचय।
CO 2	हदी भाषा तथा व्याकरण का परिचय।
CO 3	सृजनात्मक लेखन का परिचय।
CO 4	पत्रकारिता का परिचय

Hindi (Opt.) हिंदी कविता PaperNo. I

	At the end of the course, students will be able to -----
CO 1	कविता के प्रति रुचि बढाना।
CO 2	हिंदी के पद्य रचना तथा रचनाकार का परिचय।
CO 3	हिंदी भाषा के श्रवण,पठन लेखन की क्षमताओंका विकासकरना।
CO 4	विचारक्षमता तथा कल्पनाशीलता के बढाना देना।

B.A. I, Sem. II

Hindi (Compl.) व्यावहारिक लेखन Paper No.– B

At the end of the course, students will be able to -----	
CO 1	हहदी के हवहवध स्वरूप का परिचय।
CO 2	व्यावहारिक लेखन का परिचय
CO 3	पत्राचार का स्वरूप तथा प्रकार का परिचय कराना ।
CO 4	अनुवाद एवं हवज्ञापन का परिचय कराना।

Hindi (Opt.) हहदी गद्य साहहत्य PaperNo. II

At the end of the course, students will be able to -----	
CO 1	हहदी के गद्य हवधाओं का परिचय।
CO 2	हहदी के गद्य रचना तथा रचनाकार का परिचय।
CO 3	राष्ट्रीय मूल्य एवं उत्तरदाहयत्व के प्रहतआस्था का हनमाण करना।
CO 4	कथेत्तर साहहत्य के माध्यम से भावात्मक हवकास कराना।

B.A. II Sem - III

आधुनिक तामूलक हिमर् और हहदी गद्य साहहत्य Paper No. III

At the end of the course, students will be able to -----	
CO 1	कहानी हवधा का स्वरूप तथा परिचय हुआ।
CO 2	कथेतर रचना तथा रचनाकार का परिचय हुआ।
CO 3	हवहवध हवमशों का ज्ञान कराना।
CO 4	कथेतर साहहत्य का समीक्षात्मक अध्ययन से परिचय हुआ।

हहदी सत काव्य तथा राष्ट्रीय काव्यधारा Paper No. -IV

At the end of the course, students will be able to -----	
CO 1	मध्यकालीन साहहत्य का परिचय कराना।
CO 2	मध्यकालीन कहवय से परिहचत हकया।
CO 3	आधुहनक हहदी कहवता मे हचहत्रत हवहवध हवमश से परिचयहुआ।
CO 4	द हे एवं पद से परिचय कराना।

B.A. II Sem - IV

रोजगार परक हहदी Paper No. V

At the end of the course, students will be able to -----	
CO 1	'हहदी मे रे जगार के अवसर' का ज्ञान हुआ।
CO 2	गहणतीय सज्ञाओंका ज्ञान हुआ।
CO 3	रे जगार उन्मुख हशक्षा एवं कौशल्य प्रदान करना।
CO 4	पत्राचार से परिहचत कराना।

आधुनिक तामुलक हिमर् और हहदी पद्य साहहत्य Paper No.- VI

At the end of the course, students will be able to -----

CO 1	खडकाव्य का समीक्षात्मक अध्ययन।
CO 2	आधुनिक बोध से अवगत कराना।
CO 3	नेतिक,राष्ट्रीय मुल्य का स्थापना।
CO 4	हिंदी कविता से परिचय कराना।

B.A. III Sem. - V

विधा विशेष का अध्ययन Paper No. -VII

At the end of the course, students will be able to -----	
CO 1	नाटक विधा का परिचय कराना।
CO 2	नाटककार कुशलता मूल्यांकन से परिचित कराना।
CO 3	नाटककार कुशलता का विचारधारा से परिचित कराना।
CO 4	नाटक के तत्व का परिचय कराना।

साहित्य विमर्श Paper No. VIII

At the end of the course, students will be able to -----	
CO 1	काव्य के स्वरूप,तत्व से परिचित कराना।
CO 2	साहित्य निर्माण का प्रक्रिया का बोध कराना।
CO 3	समीक्षा सिद्धान्त से परिचित कराना।
CO 4	अलंकार से परिचित कराना।

हिंदी साहित्य का इतिहास Paper No.IX

At the end of the course, students will be able to -----	
CO 1	हिंदी के इतिहास लेखन का परंपरा का परिचय।
CO 2	हिंदी भाषा तथा साहित्य का विकास यात्रा से अवगत कराना।
CO 3	विभिन्न काल के सामाजिक,राजनितिक परिस्थितियाँ का ज्ञान हुआ।
CO 4	आदिकालीन तथा भक्ति कालीन कविता का परिचय।

प्रयोजनमूलक हिंदी Paper No.- X

At the end of the course, students will be able to -----	
CO 1	पारिभाषिक शब्द का ज्ञान हुआ।
CO 2	सरकारी पत्राचार के स्वरूप का परिचय कराना।
CO 3	समाचार लेखन का ज्ञान हुआ।
CO 4	रोजगार उन्मुख शिक्षा एवं कौशल्य प्रदान करना।

भाषा विज्ञान एवं हिंदी भाषा Paper No. XI

At the end of the course, students will be able to -----	
CO 1	भाषा का स्वरूप,परिभाषा,उत्पत्ति एवं विशेषताओं का जानकारी प्राप्त हुई।
CO 2	भाषाविज्ञान के वैज्ञानिक अध्ययन का दृष्टि निर्माण हुई।
CO 3	भाषा का उदभव और विकास तथा हिंदी भाषा के शब्दसमूह का ज्ञान हुआ।
CO 4	भाषा का विविधविध बोलियों का जानकारी प्राप्त हुई।

B.A.III Sem. - VI

हिंदी हिंदी उपन्यास का अध्ययन Paper No. - XI

At the end of the course, students will be able to -----	
CO 1	उपन्यास के तात्त्विक स्वरूप का परिचय देना।
CO 2	उपन्यासकार के व्यक्तित्व एवं कृतित्व से परिचित कराना।
CO 3	रचना विशेष का महत्व समझने एवं मूल्यांकन करने की क्षमता बढ़ाना।
CO 4	उपन्यास का प्रासंगिकता से अवगत कराना।

साहित्य धारा Paper No. XIII

At the end of the course, students will be able to -----	
CO 1	1.काव्य के भेद का परिचय।
CO 2	2.आलोचनात्मक दृष्टि का विकास हुआ।
CO 3	3.काव्य का नवीन विधाओं से परिचित कराना।
CO 4	4.आधुनिक गद्य विधाओं का परिचय कराना।

हिंदी साहित्य का इतिहास Paper No.- XIV

At the end of the course, students will be able to -----	
CO 1	1.विभिन्न काव्य धाराओं से परिचय कराना।
CO 2	2.हिंदी साहित्य के प्रतिनिधि रचनाकार का परिचय
CO 3	3.साहित्य और युगजीवन का सबंध विशद करने की क्षमता का निर्माण।
CO 4	4.विविध साहित्यिक विधाओं के विकास से अवगत कराना

प्रयोजनमूलक हिंदी Paper No. XV

At the end of the course, students will be able to -----	
CO 1	1.संदर्भ ग्रंथ का परिचय हुआ।
CO 2	2.अनुवाद लेखन परंपरा,महत्व एवं उपयोगिता का परिचय हुआ।
CO 3	3.जनसंचार एवं इलेक्ट्रानिक माध्यम से परिचय हुआ।
CO 4	4.रोजगार परक हिंदी की उपयोगिता स्पष्ट करना।

भाषा विज्ञान एवं हिंदी भाषा Paper No. XVI

At the end of the course, students will be able to -----	
CO 1	1.भाषा के विविध अंग का तथा भाषाविज्ञान का सामान्य ज्ञान कराना।
CO 2	2.मानक हिंदी वर्तनी और व्याकरण से छात्र को परिचित कराना।
CO 3	3.भाषा की शुद्धता के प्रति छात्र को जागृत करना ।
CO 4	4.देवनागरी लिपि का विकास तथा इतिहास का ज्ञान।

M.A. History
Programme Specific Outcomes

After completing two year post-graduate programme in the subject of History, students will be able to -------	
PSO1	Know the sources and historiography.
PSO2	Understand historical events from ancient times to the present.
PSO3	Understand data collection and process of history writing.
PSO4	Learn skills of tourism.
PSO5	Imbibe values of nationalism.

M.A. History
Course Outcomes

MAI SEM-I HIST-101 Early India (from the beginning to 3rd CBE)	
At the end of the course, students will be able to -----	
CO1	Know the history of early India from hunting to civilization.
CO2	Understand the Vedic culture.
CO3	Understand the heterodox religions.
CO4	Know the Mauryan Empire.

MAI SEM-I HIST-102 Aspects of Medieval Indian History	
At the end of the course, students will be able to -----	
CO1	Know the sources and historiography of medieval India.
CO2	Understand the Delhi Sultanate.
CO3	Understand the Mughals.
CO4	Know the Vijayanagar Empire.

MAI SEM-I HIST-108 Rise of Nationalism	
At the end of the course, students will be able to -----	
CO1	Know the concept of Nationalism.
CO2	Understand the formation of Indian National Congress.
CO3	Understand the Moderates and their work.
CO4	Know Extremists and their work.

MAI SEM-I HIST-109 Rise and consolidation of British power in India	
At the end of the course, students will be able to -----	
CO1	Know political, socio-economic condition in the second half of 18th century.
CO2	Understand the British conquest of India.
CO3	Understand the consolidation of British power in India.
CO4	Know the colonial ideology and colonial rule in india.

MAI SEM-II HIST-201 Institution under the Marathas	
At the end of the course, students will be able to -----	
CO1	Know the Maratha state and kingship.
CO2	Understand the administration of the Marathas.
CO3	Understand the society under the Marathas.
CO4	Know the religious conditions under the Marathas.

MAI SEM-II HIST-202 National Movement in India (1905-1947)	
At the end of the course, students will be able to -----	
CO1	Know the concept of Nationalism.
CO2	Understand the Extremist phase.
CO3	Understand the Gandhian movement.
CO4	Know the revolutionary movement.

MAI SEM-II HIST-208 The Colonial State in India	
At the end of the course, students will be able to -----	
CO1	Know the expansion of British colonial state in India.
CO2	Understand the colonial construction in India.
CO3	Understand the strategies of imperial control after the revolt of 1857.
CO4	Know the British paramountancy and princely states.

MAI SEM-II HIST-209 Social Reform movement in 19th Century India	
At the end of the course, students will be able to -----	
CO1	Know the Social Reform movement in 19th century India.
CO2	Understand the Social Reform movement in 19th century in Bengal.
CO3	Understand the Social Reform movement in 19th century in Western India.
CO4	Know the Social Reform movement in 19th century in north and South India.

History MAII (2018-2019)

MAII SEM-III HIST-301Tradition of History writing	
At the end of the course, students will be able to -----	
CO1	Know the ancient and medieval Tradition of History writing
CO2	Understand the Modern European Tradition
CO3	Understand the Modern Indian Tradition
CO4	Know the Tradition of History from below in India

MAII SEM-III HIST-302 Twentieth century world (1900-1950)	
At the end of the course, students will be able to -----	
CO1	Know the legacy of nineteenth century.
CO2	Understand the world order upto 1919.
CO3	Understand world between two World Wars.
CO4	Know about the Second World War.

MAII SEM-IIIHIST-307 Nationalist China(1900-1950)	
At the end of the course, students will be able to -----	
CO1	Know the Imperialism and China during 19th century.
CO2	Understand the emergency of Nationalism in China.
CO3	Understand the Nationalist China.
CO4	Know about the civil war in China.

MAII SEM-III HIST-318 Forts of Maharashtra	
At the end of the course, students will be able to -----	
CO1	Know the topography of forts.
CO2	Understand the significant of forts.
CO3	Understand the historical events and forts.
CO4	Know forts as heritage sites.

MAII SEM-IV HIST-401 Recent trends in History Writing	
At the end of the course, students will be able to -----	
CO1	Know about new approaches in understanding of history.
CO2	Understand history and allied disciplines.
CO3	Know about new tools.

MAII SEM-Iv HIST-402 Twentieth century world (1950-2000)	
At the end of the course, students will be able to -----	
CO1	Know the Cold War and its effects.
CO2	Understand the movements for social justice.
CO3	Understand an Age of Progress.

CO4	Know disintegration of socialistic bloc.

MAII SEM-IV HIST-403 Communist China	
At the end of the course, students will be able to -----	
CO1	Know the Communist Movement.
CO2	Understand the transition to socialism
CO3	Understand the cultural development in China.
CO4	Know China under Deng Xiao Ping (1976-1997).

MAII SEM-IV HIST-421 Freedom Movement in Southern Maratha Country States	
At the end of the course, students will be able to -----	
CO1	Know the nature of princely rule.
CO2	Understand the beginning of Freedom Movement in Southern Maratha Country States.
CO3	Understand the Praja Parishad Movement.
CO4	Know about Integration.

MAI - 2016-2017

MAI SEM-I HIST-101 Society Religion and culture in Early India	
At the end of the course, students will be able to -----	
CO1	Know the sources for the study of early history.
CO2	Understand Hunter Gatherers and farming culture.
CO3	Understand Vedic culture.
CO4	Know the heterodox religion.

MAI SEM-I HIST-102 Polity and Administration in Medieval India	
At the end of the course, students will be able to -----	
CO1	Know the sources.
CO2	Understand the nature of state.
CO3	Understand the cultural and provincial administration.
CO4	Know the military and judicial administration.

MAI SEM-I HIST-110 India under the Company Rule	
At the end of the course, students will be able to -----	
CO1	Know the approaches for understanding Modern India.
CO2	Understand policies and programmes.
CO3	Understand constitutional developments.
CO4	Know policies and achievements of Dalhousie.

MAI SEM-I HIST-111 19th century Maharashtra	
At the end of the course, students will be able to -----	
CO1	Know social and economic conditions in 19th century.
CO2	Understand British policies.
CO3	Understand social reforms.
CO4	Know the economy.

MAI SEM-II HIST-201 Polity and Economy under the Marathas (1600-1818)
At the end of the course, students will be able to -----

CO1	Know the sources of Marathas.
CO2	Understand the Marathas Polity.
CO3	Understand the agrarian system.
CO4	Know the industry, trade and commerce under the Marathas.

MAI SEM-II HIST-202 India under the British Rule (1857-1947)	
At the end of the course, students will be able to -----	
CO1	Know the Constitutional Developments.
CO2	Understand the external relations.
CO3	Understand the economy.
CO4	Know the society.

MAI SEM-II HIST-206 Social; and Cultural history of the Marathas (1600-1818)	
At the end of the course, students will be able to -----	
CO1	Know the social condition.
CO2	Understand the Balutedari system.
CO3	Understand religion.
CO4	Know the art and architecture.

MAI SEM-II HIST208 India's struggle for Independence	
At the end of the course, students will be able to -----	
CO1	Know the Nationalism.
CO2	Understand the Gandhian movement.
CO3	Understand the national movement.
CO4	Know Communalusm.

History MAII (2016-2017 to 2018-19)

MAII SEM-III HIST-301 Historiography: Development and recent Trends	
At the end of the course, students will be able to -----	
CO1	Know the development of history writing.
CO2	Understand the currents of modern Indian Historiography.
CO3	Understand the debates in history.
CO4	Know the eminent philosophers.

MAII SEM-III HIST-302 Modern world (1901-1945)	
At the end of the course, students will be able to -----	
CO1	Know the legacy of nineteenth century.
CO2	Understand the First World War.
CO3	Understand the world between two World Wars.
CO4	Know about the Second World War.

MAII SEM-IIIHIST-303 Indian women through the ages	
At the end of the course, students will be able to -----	
CO1	Know the women up to medieval period.
CO2	Understand the status of women.
CO3	Understand the women and education.
CO4	Know about the debates on position of women.

MAII SEM-IIIHIST-305 Tourism : Principles and Practices

At the end of the course, students will be able to -----	
CO1	Know the terminology.
CO2	Understand the components of Tourism.
CO3	Understand the historical background.
CO4	Know tourism and personality development.

MAII SEM-IV HIST-401History : Its method and Practice	
At the end of the course, students will be able to -----	
CO1	Know the sources.
CO2	Understand data collection.
CO3	Understand the process of history writing.
CO4	Know about the presentation.

MAII SEM-IV HIST-402 Modern world (1945-2000)	
At the end of the course, students will be able to -----	
CO1	Know the UNO.
CO2	Understand the Cold War.
CO3	Understand West Asia.
CO4	Know disintegration of socialistic block and the USA.

MAII SEM-IV HIST-403 Indian women in 20th century	
At the end of the course, students will be able to -----	
CO1	Know women's status in 19th century.
CO2	Understand women's participation in freedom movement.
CO3	Understand women's status in Independent India.
CO4	Know feminism.

MAII SEM-IV HIST-405 Application of Tourism in History (South India)	
At the end of the course, students will be able to -----	
CO1	Know the background.
CO2	Understand selected places in Deccan.
CO3	Understand selected places in South India.
CO4	Know about pilgrimages and festivals.

B.A. HISTORY

Programme Specific Outcomes

After the completion of B.A. in History, students will be able to ------	
PSO 1	**Understand the beginning of Freedom Movement in Southern Maratha Country States.**
PSO 2	**Understand World Revolutions.**
PSO 3	**Learn Freedom Struggle of India.**
PSO 4	**Know about Social Reformers of Maharashtra.**

B.A. HISTORY

Course Outcomes

B.A.I.- Sem-I (2016-2017 and 2017-18)
Rise of Maratha Power(1600-1707)

At the end of the course, students will be able to -----	
CO 1	Understand sources for Maratha history.
CO 2	Understand Shivaji Maharaja's Achievements
CO 3	Know Karnataka expedition.
CO 4	Know the Maratha War of Independence.

B.A.I.- Sem-II

Polity, Society and Economy under the Marathas(1600-1707)

At the end of the course, students will be able to -----	
CO 1	Understand polity and administration of Maharashtra.
CO 2	Understand economic condition of Maharashtra.
CO 3	Understand society and religion of Maharashtra.
CO 4	Understand Maratha historians.

B.A.II- Sem-III (2016-17 to 2018-19)

Paper –III World Revolutions -I

At the end of the course, students will be able to -----	
CO 1	Understand Protestant Revolution.
CO 2	Understand Glorious Revolution of England.
CO 3	Understand French Revolution.
CO 4	Know the Industrial Revolution.

Paper IV Freedom Struggle Movement of India-I

At the end of the course, students will be able to -----	
CO 1	Know uprising of 1857.
CO 2	Know nationalism.
CO 3	Understand the Age of Tilak.
CO 4	Understand the Gandhi era.

B.A.II- Sem-IV

Paper VI History of Freedom Struggle-II

At the end of the course, students will be able to -----	
CO 1	Understand the contribution of Revolutionaries.
CO 2	Acquaint about the Freedom movement.
CO 3	Know the Partition and Independence.
CO 4	Know the Indian Constitution.

B.A II (IDS) B.A.II- Sem-III

Paper –I Social Reforms in India

At the end of the course, students will be able to -----	
CO 1	Understand the socio-cultural changes under Company rule.
CO 2	Know the work of social reformers.
CO 3	Understand thoughts of Mahatma Phule.
CO 4	Know the work of Dr. B.R.Amdedkar.

B.A.II- Sem-IV

Paper –II Social Reforms in Maharashtra

At the end of the course, students will be able to -----	
CO 1	Know about the early reformers.
CO 2	Understand the work of Shahu Maharaj.
CO 3	Know about Vithal Ramji Shinde.
CO 4	Know the social and educational reformers.

BAIII 2016-17 to 2019-20 SEM-V

Paper-VII History of Ancient India India(from beginning to 3th CBC)

At the end of the course, students will be able to -----	
CO 1	Understand the Pre- and proto history.
CO 2	Understand Vedic Age.
CO 3	Understand the teachings of Buddha and Mahaveera.
CO 4	Understand the Mauryan Empire.

Paper-VIII Political History of Medieval India (1206-1707)

At the end of the course, students will be able to -----	
CO 1	Understand sources for medieval Indian history.
CO 2	Understand medieval Sultans.
CO 3	Understand Mughal emperors.
CO 4	Know the provincial rulers.

Paper-IX India since Independence-I

At the end of the course, students will be able to -----	
CO 1	Understand political parties.
CO 2	Understand other political parties.
CO 3	Know agriculture.
CO 4	Know industry and trade.

Paper-X History of Marathas (1707-1818)

At the end of the course, students will be able to -----	
CO 1	Know political condition of Marathas up to 1761.
CO 2	Know the political condition of Marathas after 1761.

CO 3	Understand the socio-economic condition.
CO 4	Know the culture of Marathas.

Paper-XI Introduction to Historiography

At the end of the course, students will be able to -----	
CO 1	Understand the history.
CO 2	Know the process of acquiring historical data.
CO 3	Know the process of presenting and writing history.
CO 4	Understand the tools of writing history.

Paper-XII History of Ancient India (From 3th C to 7th C AD)

At the end of the course, students will be able to -----	
CO 1	Know the history of Satavahanas and Kushanas.
CO 2	Understand the Guptas and Vakataka period.
CO 3	Know developments in post Gupta period.
CO 4	Know auxiliary science to study ancient India.

Paper-XIII Socio-economic and Cultural History of Medieval India

At the end of the course, students will be able to -----	
CO 1	Know the rural economy and society.
CO 2	Understand industry and trade.
CO 3	Understand religion and culture.
CO 4	Know the cultural developments.

Paper-XIV India Since Independence –II

At the end of the course, students will be able to -----	
CO 1	Know the foreign policy.
CO 2	Understand the problems.
CO 3	Understand movements.
CO 4	Know the globalization.

Paper-XV Modern Maharashtra

At the end of the course, students will be able to -----	
CO 1	Know the formation of Maraharashta.
CO 2	Understand the economy.
CO 3	Understand social movements.
CO 4	Know cultural life.

Paper-XVI Application of History

At the end of the course, students will be able to -----

CO 1	Understand the nature of museums.
CO 2	Understand the historical tourism.
CO 3	Understand the conservation and preservation.
CO 4	Know about careers through history subject.

B.A.I.- Sem-I 2018-19

Rise of Maratha Power

Course Outcomes	Students are;
CO 1	Understand rise of Maratha power
CO 2	Understand Shivaji Maharajas Achievements
CO 3	Know Maratha war of Independence
CO 4	Know sources of Maratha history

B.A.I.- Sem-II

Polity, Society and Economy under the Marathas

At the end of the course, students will be able to -----	
CO 1	Understand polity and administration of Maharashtra.
CO 2	Understand economic condition of Maharashtra.
CO 3	Understand society and religion of Maharashtra.
CO 4	Understand Shivaji Maharaja's contributions.

2019-20

B.A.II- Sem-III

History of modern Maharashtra(1900-1960)

At the end of the course, students will be able to -----	
CO 1	Understand the beginnings and growth of nationalist consciousness in Maharashtra.
CO 2	Understand contribution of Maharashtra to the national movement.
CO 3	Understand various movements of peasants, workers, women and backward classes.
CO 4	Know the background and events which led to the formation of separate state of Maharashtra

Paper IV History of India (1757-1857)

At the end of the course, students will be able to -----	
CO 1	Acquaint imself with significant events leading to establishment of the rule of East India Company.
CO 2	Know the colonial policy adopted by the company to consolidate its rule in India.
CO 3	Understand the structural changes initiated by colonial rule in India.
CO 4	Understand various revolts against rule of the East India Company.

B.A.II- Sem-IV

History of Modern Maharashtra (1060-2000)

At the end of the course, students will be able to -----	
CO 1	Acquaint himself with the contribution of eminent leaders of Maharashtra.
CO 2	Know about the economic transformation of Maharashtra.
CO 3	Understand the salient features of changes in Maharashtra.
CO 4	Understand the growth of education.

Paper VI History of Freedom Struggle

At the end of the course, students will be able to -----	
CO 1	Understand the events which lead to the growth of nationalism in India.
CO 2	Acquaint himself with major events of freedom struggle under the leadership of Gandhiji.
CO 3	Know contribution of the Revolutionaries.
CO 4	Know the concept of Communalism and Partition of India.

B.A II (IDS) B.A.II- Sem-III

Paper –I Social Reforms in India

At the end of the course, students will be able to -----	
CO 1	Understand the salient features of prominent socio-religious reform movements.
CO 2	Know the measures taken by Shahu Maharaj for emancipation of Indian society.
CO 3	Understand the thoughts of Dr.B.R.Ambedkar.
CO 4	Know how the Indian Constitution embodies the values of social justice and Equality.

B.A.II- Sem-IV

Paper –II Social Reforms in Maharashtra

At the end of the course, students will be able to -----	
CO 1	Know about the beginning of social reforms in Maharashtra.
CO 2	Understand the contributions of women reformers.
CO 3	Know the contributions of social reformers in the fight for social justice.
CO 4	Know the role played by educational reformers.

2020-2021

BA III SEM-V

Paper-VII Early India (from beginning to 4th CBC)

At the end of the course, students will be able to -----	
CO 1	Understand the transition of humans in India from hunters to farmers.
CO 2	Understand Vedic Age.
CO 3	Understand the teachings of Buddha and Mahaveera.
CO 4	Understand the Mauryan Empire.

Paper-VIII History of Medieval India

At the end of the course, students will be able to -----	
CO 1	Understand sources for medieval Indian history.
CO 2	Understand medieval rulers.
CO 3	Understand medieval administration and economy.
CO 4	Know religion, society and culture of medieval India.

Paper-IX Age of Revolution

At the end of the course, students will be able to -----	
CO 1	Understand causes and consequences of Reformation.
CO 2	Understand the salient features of Industrial Revolution.
CO 3	Know American Revolution.
CO 4	Know causes and effects of French Revolution.

Paper-X Political History of the Marathas

At the end of the course, students will be able to -----	
CO 1	Know political condition of Marathas up to 1740.
CO 2	Know the role of Balaji Bajirao.
CO 3	Understand the political condition of the Marathas after 1761.
CO 4	Know the causes for the decline of Maratha power.

Paper-XI History: ItsTheory

At the end of the course, students will be able to -----	
CO 1	Understand the definition and scope of history.
CO 2	Know the process of acquiring historical data.
CO 3	Know the process of presenting and writing history.
CO 4	Understand the methods of writing history.

BAIII SEM-VI

Paper-XII Ancient India (From 4th C to 7th CAD)

At the end of the course, students will be able to -----	
CO 1	Know early history of India.
CO 2	Understand the Classical Age
CO 3	Know developments in post Gupta period
CO 4	Know society and culture of ancient India

Paper-XIII History of Medieval India

At the end of the course, students will be able to -----	
CO 1	Know the sources for writing medieval Indian history.
CO 2	Understand medieval rulers.
CO 3	Understand medieval administration and economy.
CO 4	Know religion, society and culture of medieval India.

Paper-XIV Making of Modern World(16th to19th C)

At the end of the course, students will be able to -----	
CO 1	Know Glorious Revolution in England.
CO 2	Understand the concept of nationalism.
CO 3	Understand growth and impact of imperialism.
CO 4	Know the life and thought of important leaders.

Paper-XV Polity, Economy and Society under the Marathas

At the end of the course, students will be able to -----	
CO 1	Know the sources for writing the history of the Marathas.
CO 2	Understand polity of the Marathas.
CO 3	Understand economic condition of the Marathas.
CO 4	Know social condition of the Marathas.

Paper-XVI Methods and Application of History

At the end of the course, students will be able to -----	
CO 1	Understand the nature of archival sources.
CO 2	Understand the recent trends in history.
CO 3	Understand the application of history in museums.
CO 4	Know the concept and scope of heritage tourism.

M.A. Marathi
Programme Specific Outcomes

After the completion of M.A. in Marathi, students will be able to ------	
PSO 1	
PSO 2	
PSO 3	
PSO 4	

M.A. Marathi
Course Outcomes

2016-17 M.A. I lkfgR;fopkj o leh{kk (Paper - 1)	
At the end of the course, students will be able to -----	
CO 1	lkfgR;kps Lo:i o lkfgR;krhy laiznk;kps vkdyu >kys-
CO 2	lkfgR; leh{ksps Lo:i o vk/kqfud leh{kk fl/nkarkpk ifjp; >kyk-
CO 3	lkfgR; leh{ksph i/nrh letyh-
CO 4	ejkBh Hkk'kscíyP;k fo|kF;kZaph vkoM fodflr >kyh-
M.A. I ,dk ys[kdkpk vH;kl vokZphu % Hkkypanz usekMs (Paper - II)	
At the end of the course, students will be able to -----	
CO 1	,dk vokZphu ys[kdkpk lexz vH;kl dsyk-
CO 2	ys[kdkps okM~-e;hu O;DrheÙo] ys[kd vkf.k R;kpk ledky letkowu ?ksryk-
CO 3	,dk ys[kdkpk vH;kl dlk djkok gs letys-
CO 4	,dk ys[kdkP;k dknacjh okM-~e;kpk lexzi.ks vH;kl dsyk-
M.A. I ejkBh OkkM-~e;kpk bfrgkl % b-l- 1800 rs b-l- 1980 (Paper - III)	
At the end of the course, students will be able to -----	
CO 1	b-l- 1801 rs b-l- 1874 ;k dky[kaMkph lkekftd o lkaLd`frd ik"oZHkweh] fopkjiz.kkyh] lkekftd lq/kkj.kk o pGoGh ;kapk okM-~e;kojhy izHkkokpk vH;kl dsyk-
CO 2	b-l- 1800 rs b-l- 1980 ;k dky[kaMkrhy okM-~e; fufeZrhph ik"oZHkweh] frP;k izsj.kk] izOk`Ùkh] izokg] egÙokps xzaFkdkj o R;kaP;k lkfgR;d`rh ;k vuq'kaxkus vH;kl dsyk-
CO 3	Hkk'kkarjhr okM-~e; fu;rdkfyds] fuca/kekyk] oSpkfjd o yfyr fuca/k ;kapk ifjp; >kyk-
CO 4	dFkk] dknacjh] ukVd] dkO;] pfj= vkf.k vkRepfj= ;k okM-~e;izdkjkrhy BGd xzaFkdkj o R;kaP;k okM~-e;d`rhapk LFkwy vH;kl dsyk-
M.A. I yksdlkfgR; ladYiuk o ijaijk (Paper – IV)	
At the end of the course, students will be able to -----	
CO 1	yksdlkfgR; vkf.k yksdlaLd`rh ;krhy ijLijlaca/k letys-
CO 2	yksdlkfgR;kP;k ijaijsph vksG[k d:u fnys-
CO 3	yksdlkfgR;kPkh ladYiuk letys-
CO 4	yksdlkfgR;kpk mxe vkf.k O;kIrhcíy ekfgrh >kyh-
2016-17 to 2017-18- M.A. II vk/kqfud Hkk'kkfoKku (Paper – 9)	

At the end of the course, students will be able to -----	
CO 1	Hkkf’kd O;ogkjkps Lo:i letkowu ?ksowu Hkk’kkfoKkukpk brj vH;kl{ks=k”kh vl.kkjk laca/k riklyk-
CO 2	vk/kqfud Hkk’kkfoKkukpk ejkBh Hkk’ksP;k lanHkkZr ifjp; >kyk-
CO 3	Lou] :i] okD; ;k ladYiuk ejkBhP;k lanHkkZr riklys-
CO 4	Hkk’kkH;kli/nrh o Hkk’kkfoKku o brj vH;kl{ks= ;kapk ifjp; >kyk-
M.A. II ,dk okM~-e; izdkjkpk vH;kl % dknacjh (Paper – 10)	
At the end of the course, students will be able to -----	
CO 1	dknacjh okM-~e; izdkjkpk ifjp; d:u fnyk-
CO 2	dknacjh okM-~e; izdkjkph ladYiuk] izdkj o leh{kk letkowu lkafxryh-
CO 3	ejkBh dknacjhP;k leh{ksph okVpky letys-
CO 4	fo|kF;kZae/;s dknacjh fo’k;d leh{kspk n`’Vhdks.k ok<hl ykxyk-
CO 5	useysY;k dknacjhps fofo/k ?kVdkuqlkj foospu & fo”y’ku d:u fu’d’kZ dk<ys-
M.A. II e/;;qxhu ejkBh okM-~e; % x| vkf.k i| (Paper – 11)	
At the end of the course, students will be able to -----	
CO 1	e/;;qxhu ejkBh okM-~e; ijaijk] izsj.kk] izo`Ùkh o jpukizdkj ;kapk ifjp; d:u fnys-
CO 2	;k dky[kaMkrhy lkekftd] /kkfeZd o lkaLd`frd ik”oZHkweh vkf.k xzaFkfufeZrh ;kapk vuqca/k Li’V dsys-
CO 3	;k dky[kaMkrhy i|okM-~e;kpk o rRdkyhu ejkBhP;k Lo:ikpk ifjp; d:u fnys-
CO 4	;k dky[kaMkrhy i|okM-~e;kps Lo:i o oSf”k’Vîs ;kapk ifjp; d:u ns.ks-
CO 5	egkuqHkko okM-~e;] larokM-~e; ;k fn”ksus e/;;qxhu okM-~e;kpk >kysyk fodkl o okVpky ;kapk vk<kok ?ksryk-
M.A. II yksdfiz; lkfgR; (Paper – 12)	
At the end of the course, students will be able to -----	
CO 1	fp=iVkrwu fo|kF;kZauk lkfgR;kph vkoM ykoyh-
CO 2	lkfgR;kr fp=iV fufeZrhpk vodk”k vlrks ;kph tk.kho d:u fnyh-
CO 3	fo|kFkhZfiz; lkfgR;kpk vH;kl djowu ?ksrys-
CO 4	ejkBh Hkk’kscíyP;k fo|kF;kZaph vkoM fodflr >kyh-
M.A. II lektHkk’kkfoKku vkf.k ejkBh Hkk’kk (Paper – 13, l= nqljs)	
At the end of the course, students will be able to -----	
CO 1	lektHkk’kkfoKku] ejkB;kaph cksyh fdaok “kCnlaxzg ;kapk ifjp; d:u fnys-

CO 2	Hkk'kk vkf.k lekt ;kapk ijLijlac/k letkowu ?ksrys-
CO 3	ejkBh Hkk'ksph mRirh letkowu ?ksrys-
CO 4	Hkk'kkdqy o ejkBhpk lglaca/k riklys-
CO 5	ejkBhojhy vU; Hkk'kkaP;k izHkkokpk iMrkGk ?ksryk-
M.A. II foKkulkfgR; (Paper – 16, l= nqljs)	
At the end of the course, students will be able to -----	
CO 1	fo|kF;kZaP;kr oSKkfud n`'Vhdks.kkph :to.kwd dsyh-
CO 2	fo|kF;kZaP;kr foKkukph vkoM fuekZ.k >kyh-
CO 3	foKkulkfgR;kpk ifjp; >kyk-
CO 4	ejkBh Hkk'kscíyP;k fo|kF;kZaph vkoM fodflr >kyh-

M.A. I Marathi 2017-18 to 2020-21

M.A. I fo"ks'k lkfgR;d`rhapk vH;kl (Paper – 2.2)	
At the end of the course, students will be able to -----	
CO 1	ys[kd vH;kli/nrhpk mi;ksx dlk djkok gs letys-
CO 2	ys[kdkps okM-~e;hu O;DrheÙo vkf.k ys[kd o R;kpk ledky letyk-
CO 3	lkfgR;d`rhrwu ys[kdkP;k ledkykps izfrfcac d"kk izdkjs izdV gksrs ;kpk vH;kl dsyk
CO 4	ys[kdkP;k brj lkfgR;d`rh fopkjkr ?ksÅu ys[kdkP;k okM-~e;hu tM.k ?kM.k?kM.khpk fopkj >kyk-
CO 5	,dw.k okM-~e;hu ijaijsr ys[kdkps ;ksxnku letys-
M.A. I vk/kqfud ejkBh okM-~e;kpk bfrgkl ¼Lokra«;iwoZ dkG½ (Paper – 3)	
At the end of the course, students will be able to -----	
CO 1	Lokra«;iwoZ dkGkrhy egkjk'Vªkrhy lkekftd] lkaLd`frd thoukph ik"oZHkweh letwu ?ksryh- rlsp R;kapk lkfgR;kojhy vkarjlaca/k vH;klyk-
CO 2	;k dkGkrhy fofo/k lkfgR;izokgkapk bfrgkl vH;klrkuk R;k R;k izokgkrhy okM-~e; izdkjkaps Lo:i oZf"k'V;s vH;klyh-
CO 3	eq[;izokgkrhy lkfgR;kcjkscjp brj lekarj lkfgR;izokgkaph oSf"kV;s letkowu ?ksryh-
CO 4	,dw.k okM-~e;hu ijaijsr ys[kdkps ;ksxnku letys-
M.A. I yksdlkfgR; o yksddyk (Paper – 4.2)	
At the end of the course, students will be able to -----	
CO 1	yksdlkfgR; vkf.k yksdlaLd`rh ;krhy ijLij laca/k letkowu ?ksryh-
CO 2	yksdlkfgR;kph ladYiuk letkowu ?ksryh-
CO 3	yksdlkfgR;kP;k ijaijsph vksG[k >kyh-
CO 4	yksdlkfgR;kP;k mxe vkf.k O;kIrhcíy ekfgrh ?ksryh-
M.A. I lkfgR;izdkjkapk lw{e fopkj (Paper – 5)	

At the end of the course, students will be able to -----	
CO 1	lkfgR;izdkjkaph ladYiuk letyh-
CO 2	fofo/k okM-~e; izdkjkrhy dFkukaps Lo:i vH;klys-
CO 3	osxossxG;k okM-~e; izdkjkrhy dFkufo”ks’k vH;klys-
CO 4	okM-~e; izdkjkrhy dFkukpk rqyukRedn`’V;k fopkj dsyk-
M.A. I vk/kqfud ejkBh okM-~e;kpk bfrgkl ¼Lokra«;ksÙkj dkG½ (Paper – 7)	
At the end of the course, students will be able to -----	
CO 1	Lokra«;iwoZ dkGkrhy egkjk’Vªkrhy lkekftd] lkaLd`frd thoukph ik”oZHkweh letwu ?ksryh- rlsp R;kapk lkfgR;kojhy vkarjlaca/k vH;klys-
CO 2	;k dkGkrhy fofo/k lkfgR;izokgkapk bfrgkl vH;klyk-
CO 3	eq[;izokgkrhy lkfgR;kcjkscjp brj lekarj lkfgR;izokgkaph oSf”kV;s letkowu ?ksryh-
CO 4	R;k R;k izokgkrhy okM-~e; izdkjkaps Lo:i oSf”k’V;s vH;klyh-

M.A. II Marathi 2018-19 to 2020-21

M.A. II lektHkk’kk foKku (Paper – 9)	
At the end of the course, students will be able to -----	
CO 1	lektHkk’kk foKkukps Lo:i letys-
CO 2	lektHkk’kkfoKkukrhy fofo/k fl/nkar] ladYiukapk ifjp; >kyk-
CO 3	lekt] laLd`rh vkf.k Hkk’kk ijLij laca/k letys-
CO 4	lektHkk’kk foKkukph O;kIrh letys-
CO 5	Hkk’kkO;ogkjkph fofo/krk letys-
M.A. II OkkM-~e;hu laLd`rh (Paper – 10.1)	
At the end of the course, students will be able to -----	
CO 1	okM-~e;hu laLd`rh gh ladYiuk letyh-
CO 2	lekt vkf.k laLd`rh ;krhy vuqca/k y{kkr vkyk-
CO 3	ekSf[kd vkf.k fyf[kr ijaijsr okM-~e;hu ijaijsyk la?kfVr dj.kk&;k ?kVdkapk fopkj dsyk-
CO 4	okM-~e;hu laLd`rhps Lo:i riklyk-
M.A. II leh{kk fl/nkar vkf.k mi;kstu (Paper – 11)	
At the end of the course, students will be able to -----	
CO 1	mi;ksftr leh{ksrhy dkgh leh{ksps Lo:i ekfgrh d:u ?ksryh-
CO 2	lekt”kkL=h; o vkfnca/kkRed leh{kk ;k leh{kkizokgkapk fopkj >kyk-
CO 3	izR;{k mi;ksftr leh{ksps mi;kstu Eg.kwu fuoMd lkfgR;d`rhapk fopkj >kyk-
CO 4	ejkBh leh{ksph VIis y{kkr vkyh-
M.A. II xzaFkizdk”ku vkf.k laiknu (Paper – 12.5)	

At the end of the course, students will be able to -----	
CO 1	xzaFk izdk”kukps Lo:i /;kukr vkyk-
CO 2	xazFkizdk”ku] xzaFkO;ogkj o izdk”kulaLd`rh ;kfo’k;h ekfgrh >kyh-
CO 3	xzaFkfufeZrhrhy ckjdkos letys-
CO 4	rlsp eqnz.kizfØ;k o R;ke/;s gksr vlysys cny /;kukr vkys-

B.A. Marathi
Programme Specific Outcomes

After the completion of B.A.in Marathi, students will be able to------	
PSO 1	lkfgR;krhy thoun”kZu] ledky] O;ogkj ;kaph tk.kho ns.k
PSO 2	lkfgR;fo’k;d vkdyu{kerk ok<fo.k
PSO 3	mi;ksftr Hkk’kkdkS”kY;s izkIr dj.ks
PSO 4	^;qod* o;ksxVkrhy fo|kF;kZaph euksHkwfedk iDdh dj.ks] fodflr dj.k
PSO 5	yfyr lkfgR;izdkjkaph vksG[k d:u ns.ks
PSO 6	lkfgR;krwu ekuoh thou o O;ogkj letkowu ns.k
PSO 7	lkfgR;kP;k lkekftd ckaf/kydhph tk.k vkf/kd n`< dj.k
PSO 8	^;qod* o;ksxVkrhy fo|kF;kZaph euksHkwfedk iDdh dj.ks] fodflr dj.k

B.A. Marathi
Course Outcomes

2016-17 onwards

B.A. I – Comp. (Marathi)	
At the end of the course, students will be able to -----	
CO 1	lkfgR;krhy thoun”kZu] ledky] O;ogkj ;kaph tk.kho ns.ks-
CO 2	lkfgR;fo’k;d vkdyu{kerk ok<fo.ks-
CO 3	mi;ksftr Hkk’kkdkS”kY;s izkIr dj.ks-
CO 4	^;qod* o;ksxVkrhy fo|kF;kZaph euksHkwfedk iDdh dj.ks] fodflr dj.ks-
B.A. I – Opt. Marathi	
At the end of the course, students will be able to -----	
CO 1	yfyr lkfgR;izdkjkaph vksG[k d:u ns.ks-
CO 2	lkfgR;krwu ekuoh thou o O;ogkj letkowu ns.ks-
CO 3	lkfgR;kP;k lkekftd ckaf/kydhph tk.k vkf/kd n`< dj.ks-
CO 4	^;qod* o;ksxVkrhy fo|kF;kZaph euksHkwfedk iDdh dj.ks] fodflr dj.ks-
B.A. II (Paper III)	
At the end of the course, students will be able to -----	

CO 1	e/;;qxhu ejkBh okM-~e;kpk o Hkk'kspk ifjp; >kyk-
CO 2	e/;;qxhu ejkBh okM~-e;krhy lkSan;ZLFkGs letkowu ?ksryh-
CO 3	e/;;qxkrhy lkfgR;kph fufeZrh izsj.kk letyh-
CO 4	vuqokn izfØ;spk ifjp; >kyk-
B.A. II (Paper IV)	
At the end of the course, students will be able to -----	
CO 1	e/;;qxhu ejkBh okM-~e;kpk o Hkk'kspk ifjp; >kyk-
CO 2	e/;;qxhu ejkBh okM~-e;krhy lkSan;ZLFkGs letkowu ?ksryh-
CO 3	e/;;qxkrhy lkfgR;kph fufeZrh izsj.kk letyh-
CO 4	laiknu izfØ;spk ifjp; >kyk-
B.A. II (Paper V)	
At the end of the course, students will be able to -----	
CO 1	ledkfyu tkf.kok O;Dr dj.kk&;k dFkspk ifjp; >kyk-
CO 2	ejkBh dFksph ladYiuk letyh-
CO 3	ejkBh dFksP;k fodklkpk ifjp; >kyk-
CO 4	vuqoknizfØ;spk ifjp; >kyk-
B.A. II (Paper VI)	
At the end of the course, students will be able to -----	
CO 1	ledkfyu tkf.kok O;Drdj.kk&;k dforspk ifjp; >kyk-
CO 2	ejkBh dFksP;k fodklkpk ifjp; >kyk-
CO 3	ejkBh dFksph ladYiuk letyh-
CO 4	laiknu izfØ;spk ifjp; >kyk-
.B.A. III dkO;"kkL= (Paper VII)	
At the end of the course, students will be able to -----	
CO 1	ikSokZR; dkO;"kkL=kph vksG[k d:u ?ksryh-
CO 2	dkO;kph y{k.ks vkf.k iz;kstus letyh-
CO 3	lkfgR;kph fufeZrhizfØ;k vkf.k Lo:i letys-
CO 4	Hkk'ksps vyadkj dGkys-
B.A. III dkO;"kkL= (Paper XII)	
At the end of the course, students will be able to -----	
CO 1	"kCn"kDrhps Lo:i o izdkj letys-
CO 2	jlizfØ;k dGkyh-
CO 3	lkfgR;kph vkLoknizfØ;k dGkyh-
CO 4	lkfgR;fufeZrhP;k vkf.k vkLoknkP;k vkuankph ehekalk dsyh-
CO 5	fo|kF;kZapk okM~-e;hu n`'Vhdks.k fodflr >kyk-
B.A. III Hkk'kkfoKku vkf.k ejkBh Hkk'kk (Paper VIII)	

At the end of the course, students will be able to -----	
CO 1	vk/kqfud Hkk’kkfoKku vkf.k ejkBh Hkk’kk ;kapk lglaca/k letys-
CO 2	Hkk’ksph mRiÙkh] Lo:i] dk;Z dGkys-
CO 3	/ofuifjorZukph dkj.ks o izdkj ;kaph ekfgrh >kyh-
CO 4	ejkBh Hkk’ksph o.kZO;oLFkk letyh-
CO 5	ejkBh Hkk’kscíyP;k fo|kF;kZaph vkoM fodflr >kyh-
B.A. III Hkk’kkfoKku vkf.k ejkBh Hkk’kk (Paper XIII)	
At the end of the course, students will be able to -----	
CO 1	vFkZifjorZukP;k dkj.kkaph o izdkjkaph ekfgrh >kyh-
CO 2	ejkBhpk mxedkG o frP;k tud Hkk’ksfo’k;h ekfgrh ?ksryh-
CO 3	ejkBhph “kCnO;oLFkk letyh-
CO 4	ejkBh Hkk’kscíyP;k fo|kF;kZaph vkoM fodflr >kyh-
B.A. III ejkBh okM~-e;kpk bfrgkl (Paper IX,XIV)	
At the end of the course, students will be able to -----	
CO 1	e/;;qxhu ejkBh okM~-e; ijaijkapk o bfrgklkpk ifjp; d:u fnyk-
CO 2	;k dky[akMkrhy okM~-e; jpuk izdkjkapk o izsj.kkapk ifjp; >kyk-
CO 3	izeq[k laiznk; o xzaFk fufeZrh ;kapk vuqca/k letyk-
CO 4	;k dkGkrhy ejkBh Hkk’ksps Lo:i letys-
B.A. III ejkBh Hkk’kk % mi;kstu vkf.k ltZu (Paper IX,XIV)	
At the end of the course, students will be able to -----	
CO 1	vkSipkfjd vkf.k vukSipkfjd {ks=kuqlkj Hkkf’kd O;ogkj letys-
CO 2	fofo/k {ks=krhy Hkkf’kd dkS”kY; vkf.k {kerk fodflr >kyh-
CO 3	fo|kF;kZapk “kCnlaxzg le`/n >kyk-
CO 4	mi;ksftr o ltZu”khy ys[kukl fo|kF;kZauk m|qDr dsys-
CO 5	ejkBhP;k fo|kF;kZaP;k O;fDreÙokpk fodkl >kyk-
B.A. III OkkM~-e; izokgkaps v/;;u ¼xzkeh.k lkfgR;½ (Paper XI, XVI)	
At the end of the course, students will be able to -----	
CO 1	ejkBhrhy fofo/k lkfgR;izokgkapk ifjp; d:u ?ksryk-
CO 2	xzkeh.k lkfgR;izokgkph izsj.kk] Lo:i] oSf”k’Bs o fodkl letyh-
CO 3	vH;klkFkZ ulysY;k lkfgR;d`rh}kjs lacaf/kr lkfgR;izokgkaps vkdyu dsys-
CO 4	ejkBh Hkk’kscíyP;k fo|kF;kZaph vkoM fodflr >kyh-

B.A. Marathi 2018-2019

B.A. I – Comp. Marathi
At the end of the course, students will be able to -----

CO 1	fo|kF;kZaph ejkBh Hkk'kk vkf.k lkfgR;kfo'k;h vfHk:ph fodflr >kyh-
CO 2	ejkBh lkfgR; ijaijk] ys[kd] doh ;kapk ifjp; d:u fnys-
CO 3	fo|kF;kZae/;s ekr`Hkk'kk] jk'Vªh; ,dkRerk vkf.k mPp ekuoh ewY;kafo'k;h tk.kho fuekZ.k >kyh-
CO 4	fo|kF;kZaPkk O;fDreÙo fodkl ?kMowu fofo/k ijh{kk vkf.k Li/kkZ ijh{kkaph iwoZr;kjh d:u ?ksryh-
CO 5	fuca/k ys[kukP;k ek/;ekrwu Hkk'kk mi;kstukph dkS"kY;s fodflr >kyh-
B.A. I – Opt. (Marathi)	
At the end of the course, students will be able to -----	
CO 1	fo|kF;kZaph ejkBh Hkk'kk vkf.k lkfgR;kfo'k;h vfHk:ph fodflr >kyh-
CO 2	ejkBh lkfgR; ijaijk] ys[kd] doh ;kapk ifjp; >kyk-
CO 3	fo|kF;kZae/;s ekr`Hkk'kk] jk'Vªh; ,dkRerk vkf.k mPp ekuoh ewY;kafo'k;h tk.kho fuekZ.k >kyh--
CO 4	fo|kF;kZaPkk O;fDreÙo fodkl ?kMowu fofo/k ijh{kk vkf.k Li/kkZ ijh{kkaph iwoZr;kjh >kyh-
CO 5	fp=iV vkf.k izlkjek/;es ;kaP;k ys[ku vkf.k mi;kstukP;k vkdyukpk vodk"k ok<foyk-
CO 6	laiknu izfØ;spk ifjp; d:u fnyk-

B.A. Marathi 2019-2020

B.A. II Paper V	
At the end of the course, students will be able to -----	
CO 1	vkRepfj= ;k okM~-e; izdkjkph vksG[k >kyh-
CO 2	vkRepfj=dkjkP;k O;fDreÙokph tM.k &?kM.k vkf.k R;kpk ledky letyk-
CO 3	vkReo`Ùk ys[ku dkS"kY;s fodflr >kyh-
CO 4	ejkBh Hkk'ksP;k fo|kF;kZP;k O;fDreŸokpk fodkl >kyk-
B.A. II Paper VI	
At the end of the course, students will be able to -----	
CO 1	dknacjh okM~-e; izdkjkph vksG[k >kyh-
CO 2	ekuoh ewY;kafo'k;h tk.kho fuekZ.k >kyh-
CO 3	dknacjhys[kukps fo"ks'k vH;klys-
CO 4	o`Ùkkarys[ku dkS"kY;s :tfoys-

B.A. Marathi 2020-2021

B.A. III 2020-21 lkfgR;fopkj - Paper VII	
At the end of the course, students will be able to -----	
CO 1	iksokZR;] ik”pkR; o vk/kqfud Hkkjrh; lkfgR;”kkL=kps Lo:i letwu ?ksrys-
CO 2	yfyr o yfyrsrj lkfgR;kps LOk:i letwu ?ksrys-
CO 3	lkfgR;kph fufeZrh izfØ;k vkf.k R;kps Lo:i vkdyu d:u ?ksrys-
CO 4	lkfgR;iz;kstukps vkdyu d:u ?ksrys-
CO 5	Hkk’ksrhy vyadkj letwu ?ksrys-
B.A. III ejkBh Hkk’kk o Hkk’kkfoKku (Paper VIII)	
At the end of the course, students will be able to -----	
CO 1	Hkk’kksRiÙkhpk vH;kl dsyk-
CO 2	Hkk’kkfoKkukpk ifjp; d:u ?ksrys-
CO 3	LOkufopkj] :ifopkj o okD;fopkjkapk ifjp; d:u ?ksrys-
CO 4	Hkk’kkfoKku vkf.k ejkBhHkk’kk ;kapk lglaca/k tk.kwu ?ksrys-
CO 5	ejkBh Hkk’kkafo’k;h fo|kF;kZaph vkoM fodflr dsyh-
B.A. III e/;;qxhu ejkBh okM-~e;kpk bfrgkl (Paper IX)	
At the end of the course, students will be able to -----	
CO 1	e/;;qxhu ejkBh okM-~e;kpk dkfyd vH;kl dsyk-
CO 2	e/;;qxhu ejkBh okM-~e;kpk LFkwy ifjp; d:u ?ksryk-
CO 3	e/;;qxhu ejkBh okM-~e;kps Lo:i] oSf”k’V;s vH;klyh-
CO 4	e/;;qxhu ejkBh okM-~e;krhy egÙokps xzaFkdkj vkf.k xzaFk ;kapk LFkwy ifjp; d:u ?ksrys-
CO 5	e/;;qxhu ejkBh okM-~e;kP;k x|] i| jpusps fo”ks’k vH;klys-
B.A. III ejkBh Hkk’kk o vFkkZtZukP;k la/kh (Paper X)	
At the end of the course, students will be able to -----	
CO 1	ltZu”khy ys[kuizfØ;k letwu ?ksryh-
CO 2	oSpkfjd ys[kukps Lo:i vH;klys-
CO 3	“kks/kfuca/k o izdYiys[ku dkS”kY; letwu ?ksrys-
CO 4	vkarjtkykojhy ejkBh ys[kui/nrh vH;klys-
B.A. III okM-~e; izokgkps v/;;u % e/;;qxhu (Paper XI)	
At the end of the course, students will be able to -----	
CO 1	e/;;qxhu egkjk’Vª o egkuqHkko iaFk ;kapk ifjp; d:u ?ksrys-
CO 2	egkuqHkko okM-~e;kP;k izsj.kk o Lo:i letwu ?ksrys-
CO 3	egkuqHkkoh; xzaFkdkj dslksckl ;kapk ifjp; d:u ?ksrys-
CO 4	nq’VkarikBkrhy Hkkf’kd oSHkokpk ifjp; d:u ?ksrys-
B.A. III lkfgR;fopkj -Paper XII	

At the end of the course, students will be able to -----	
CO 1	“kCn”kDrhps vkdyu d:u ?ksrys-
CO 2	lkfgR;krhy jlkps Lo:i o jlizfØ;k letwu ?ksrys-
CO 3	fufeZrhP;k vkuankph ehekalk dsyh-
CO 4	O;ogkj Hkk’kk % “kkL=Hkk’kk vkf.k lkfgR;Hkk’kk ;karhy Hksn letwu ?ksrys-
B.A. III ejkBh Hkk’kk o Hkk’kkfoKku - Paper XIII	
At the end of the course, students will be able to -----	
CO 1	ejkBh Hkk’kps Ok.kZO;oLFkk letwu ?ksryh-
CO 2	/ouh o vFkZifjorZukph dkj.ks o izdkj ;kaph ekfgrh d:u ?ksryh-
CO 3	izek.kHkk’ksps Lo:i o fo”ks’k vH;klys-
CO 4	cksyhaps Lo:i o fo”ks’k letwu ?ksrys-
B.A. III e/;;qxhu ejkBh okM-~e;kpk bfrgkl (Paper XIV)	
At the end of the course, students will be able to -----	
CO 1	e/;;qxhu ejkBh okM-~e;kpk dkfyd vH;kl dsyk-
CO 2	e/;;qxhu ejkBh okM-~e;kpk LFkwy ifjp; d:u ?ksryk-
CO 3	iafMr doh o R;kaph jpuk ;kapk ifjp; d:u ?ksryk-
CO 4	c[kj okM-~e; vkf.k “kkfgjh okM-~e; ;kaps Lo:i] fo”ks’k vH;klys-
B.A. III ejkBh Hkk’kk o vFkkZtukP;k la/kh -Paper XV	
At the end of the course, students will be able to -----	
CO 1	izlkjek/;ekrhy vFkkZtZukP;k la/kh vkf.k Hkkf’kd dkS”kY;s ;kapk ifjp; d:u ?ksrys-
CO 2	Li/kkZ ijh{kkae/;s ejkBh Hkk’kk fo’k;kps egÙo letwu ?ksrys-
CO 3	m|ksx o lsok {ks=kr ejkBh Hkk’ks}kjs vFkkZtZuizkIrh lanHkkZr Kku laiknu dsys-
CO 4	eqfnzr “kks/kukph i/nrh vH;klys-
B.A. III okM-~e; izdkjkps v/;;u % yfyr x| Paper XVI	
At the end of the course, students will be able to -----	
CO 1	Yfyr x| okM-~e;kps Lo:i vH;klys-
CO 2	O;fDrfp= ladYiuk o Lo:i letwu ?ksrys-
CO 3	izokguq:i ejkBhrhy O;fDrfp=kaps Lo:i vH;klys-
CO 4	eqy[kkosxGh ek.kla e/khy O;fDrfo”ks’kkaps vkdyu d:u ?ksrys-

B.A. Political Science
Programme Specific Outcomes

After completion of B.A. in Political Science, students will be able to -----.

PSO 1	**Develop theoretical understanding about national and international political System.**
PSO 2	**Understand laws, political process and public administration.**
PSO 3	**Know about the Constitution of India and national and international political affairs.**
PSO 4	**Learn theories of Indian and Western political thinkers.**
PSO 5	**Understand the importance of the study for competitive examinations.**

B.A. Political Science
Course Outcomes

B.A.-I Sem. I & II (Paper I, II): Introduction to Political Science and Indian Constitution

At the end of the course, students will be able to -----	
CO 1	Get knowledge about Political Science and its sub-discipline.
CO 2	Understand the concepts of state and democracy.
CO 3	Acquire knowledge about Constitution of India.

B.A.-II Sem. III & IV (PaperIII &V): Political Process of India and Local Self-Government in Maharashtra

At the end of the course, students will be able to -----	
CO 1	Get detailed information about Indian federalism, election process , party System.
CO 2	Understand the concept of Local Self Government, including Rural and Urban.
CO 3	Know the Constitution Amendments with their features.
CO 4	Understand problems and challenges in Indian politics.

B.A.-II (Paper IV & VI): Indian Political Thinkers

At the end of the course, students will be able to -----	
CO 1	Understand Indian political thinkers and their views.
CO 2	Know about political thinkers during Independence movement and the importance of their thoughts in modern society.

2016-17 to 2019-20

B.A.-III Sem.V&VI (Paper VII, XII):Modern Government and Political Concepts

At the end of the course, students will be able to -----	
CO 1	Get knowledge about organs of government machinery.
CO 2	Understand modern concepts of Feminism, Multiculturalism, Environmentalism, civil society, etc.

B.A.-III (Paper VIII & XIII): Public Administration and Administrative Thinkers

At the end of the course, students will be able to -----	
CO 1	Understand various concepts in public administration and administrative system.
CO 2	Know about thinkers on administration and their administrative theories.

B.A.-III (Paper IX, XIV): International Politics and Foreign Policy of India

At the end of the course, students will be able to -----	
CO 1	Understand concepts and dimensions of international politics, regional organizations and the new world order
CO 2	Learn about the foreign policy of India, U.S.A., Russia and neighboring countries.
CO3	Learns about pre and post-Cold War, current national and international political situation.

B.A.-III (Paper X, XV): Constitution of United States of America, China, Sweden

At the end of the course, students will be able to -----	
CO 1	Get knowledge about U.S.A., China, Sweden and historical background, comparative perspectives and political processes.
CO 2	Understand differences and similarities between various constitutional arrangements.

B.A.-III :Classical and Modern Western Political Thinkers (Paper XI, XVI)

At the end of the course, students will be able to -----	
CO 1	Get information of classical traditions of thinkers and their historical aspects of state and society.
CO 2	Study of theviews of modern Western thinkers and emerging aspects of state and society.

2020-21 onwards

B.A.-III (Paper VII, XII): Political Theory, Modern Government and Political Concepts

At the end of the course, students will be able to -----	
CO 1	Get knowledge about organs of government machinery.
CO 2	Understand modern concepts of feminism, multiculturalism, environmentalism, civil society, etc.
CO 3	Learn and prepare for future course of study in political theory.

B.A.III (Paper VIII & XIII): Public Administration, Politics and Movement in Maharashtra

At the end of the course, students will be able to -----	
CO 1	Learn various concepts in public administration and administrative System.
CO 2	Know about the political system and movements in Maharashtra, the political process of formation of Maharashtra, political parties and pressure groups inMaharashtra.

B.A.-III (Paper IX, XIV): International Politics and Foreign Policy of India

At the end of the course, students will be able to -----	
CO 1	Understand concepts and dimensions of international politics, regional organizations and the New World Order
CO 2	Learn about Foreign Policy of India, U.S.A., Russia and neighboring countries.
CO 3	Learns about pre and post-Cold War and current national and international political situation.

B.A.-III (Paper X & XV): Comparative Government (with special reference to UK and America)

At the end of the course, students will be able to -----

CO 1	Familiarize with composition, functions, and law-making process of legislative bodies in UK and USA.
CO 2	To introduce the procedure of adjudication, role of the pressure groups in the politics.

B.A.-III (Paper XI & XVI): Classical and Modern Western Political Thinkers

At the end of the course, students will be able to -----	
CO 1	Get information about classical traditions of thinkers and the historical aspects of state and society.
CO 2	Learn about political Thought and views of modern western thinkers and contemporary emerging various aspects of state and society.

M.A. Sociology
Programme Specific Outcomes

After completing postgraduation in Sociology, students will be able to ------	
PSO 1	**Get latest sociological knowledge pertaining to various sub-fields within the discipline of sociology .**
PSO 2	**Understand, analyze and critically evaluate social reality and perspectives.**
PSO 3	**Develop research aptitude relevant for their social and professional life.**
PSO 4	**Understand social and cultural diversity and unity of Indian society.**

M.A. Sociology
Course Outcomes

M.A. I Sem I: Soc-1 Classical Sociological Traditions:Marks, Durkheim and Weber	
At the end of the course, students will be able to -----	
CO 1	Understand historical rise of sociological theory.
CO 2	Understand socio-economic and intellectual forces in the rise of sociological theory.
CO 3	Understand sociological theories of Karl Marx & Emil Durkheim.
CO 4	Understand sociological theories of Max Weber.
M.A. I Sem I: SOC 2: Understanding Indian Society	
At the end of the course, students will be able to -----	
CO 1	Understand traditional social organization.
CO 2	Understand the diversity & unity of Indian society.
CO 3	Understand major segments in the society, continuities and changes in the Indian society .
M.A. I Sem I SOE-03 Rural Society in India	
At the end of the course, students will be able to -----	
CO 1	Understand rural social structure.
CO 2	Understand change and development of rural sociology in India.
CO 3	Develop skills to contribute to reconstruction of rural development programmes.

CO 4	Understand the *Panchayat Rajya* system.
CO 5	Become aware of green revolution & globalization.
M.A. I Sem I SOE-08 Gender & Society	
At the end of the course, students will be able to -----	
CO 1	Understand the social construction of gender.
CO 2	Able to understand role of biology and culture in the determination of gender roles.
CO 3	Understand theories of gender relation.
CO 4	Understand the position of women in Indian society.
CO 5	Understand women's organizations and movements in India.
M.A. I Sem II -SOC 03 Classical Sociological Traditions:Pareto,Cooley and Mead	
At the end of the course, students will be able to -----	
CO 1	Understand major concepts of Pareto & Mead.
CO 2	Understand the relation between individual & society.
CO 3	Learn the Act Gesture & significant symbols.
CO 4	Apply theories to real life situations.
SOC 04 Perspectives of Indian Society	
At the end of the course, students will be able to -----	
CO 1	Sensitise themselves to diverse interconnections of theoretical perspectives on Indian society.
CO 2	Understand the development of sociology & social anthropology.
CO 3	Comprehend the civilization and subaltarn perspectives.
CO 4	Know the contribution of Indian sociologists.
SOE 14 Urban Society in India	
At the end of the course, students will be able to -----	
CO 1	Understand basic concepts in urban sociology.
CO 2	Learn theories of urban development.
CO 3	Know the process of urbanization its social consequences.
CO 4	Understand different urban problems, planning and development.
SOC 14 Mass Communication	
At the end of the course, students will be able to -----	
CO 1	Understand the importance of social dimension & concept of communication.
CO 2	Learn interrelation between society & communication process.
CO 3	Become aware of the rise & growth of mass media.
SEM III: SOC 05 Modern Sociological Theory	
At the end of the course, students will be able to -----	
CO 1	Understand the concept of ‘theory’ and the relationship between theory & research.
CO 2	Understand types of functions of sociological theory.

CO 3	Understand the schools of thought that dominated sociology in the latter half of 20th century.
SOC 06 Methodology of Social Research	
At the end of the course, students will be able to -----	
CO 1	Understand the basic framework of research process.
CO 2	Define various research designs and techniques.
CO 3	Know various aspects of research in Sociology .
CO 4	Interpretat data and learn report writing.
SOE 25 Sociology of Kinship, Marriage& Family	
At the end of the course, students will be able to -----	
CO 1	Understand the importance of family, kinship and marriage system in India.
CO 2	Understand kinship organization in India.
CO 3	Understand the changing nature of family, marriage & kinship system.
SOE 30 Sociology of Health	
At the end of the course, students will be able to -----	
CO 1	Understand the interrelationship between society & health.
CO 2	Understand the basic concept in sociology of health & sociological perspectives on health.
CO 3	Learn the social causes and various aspects of community health.
CO 4	Know health policy of the Government of India.
SEM IVSOC 07 Recent Trends in sociological Theory	
At the end of the course, students will be able to -----	
CO 1	Understand theoretical perspectives in sociology.
CO 2	Develop analytical skill through the study of theoretical perspectives.
SOC 08 Data Collection & Analytical Procedure	
At the end of the course, students will be able to -----	
CO 1	Identify various sources of information for literature review and data collection.
CO 2	Understand ethical dimensions of conducting applied research.
CO 3	Learn various data analysis techniques (mean, mode and median).
SOE 35 Rural Development in India	
	At the end of the course, students will be able to -----
CO 1	Understand the changing nature of rural development in India.
CO 2	Learn the impact of various development schemes & programmes introduced for rural development.
CO 3	Know rural development programmes in pre-independent and post-independent India.
CO 4	Become aware of rural problems in India.
SOE 40 Sociology of Social Work	
At the end of the course, students will be able to -----	
CO 1	Understand the field of social work education.

CO 2	Learn basic concepts and methods of social work.
CO 3	Become aware of the relevance of sociology to social work practices.
B.A. Sociology Programme Specific Outcomes	
After the completion of degree programme in Sociology, students will be able to ------	
PSO 1	**Inculcate social sense among students.**
PSO 2	**Understand the structure/s of society.**
PSO 3	**Learn social issues and solutions.**
PSO 4	**Understand the importance of social values.**
B.A. Sociology Course Outcomes	
B.A.I Sem.I Paper-I Introduction to Sociology	
At the end of the course, students will be able to -----	
CO 1	Understand the structure of society.
CO 2	Understand structure of social culture and socialization
CO 3	Understand functions of social institutions.
CO 4	Learn the basic concept of sociology, subject matter, its importance, origin and development of sociology
CO 5	Understand the relationship between human society and sociology.
Paper- II Applied Sociology	
At the end of the course, students will be able to -----	
CO 1	Understand the role of media in society.
CO 2	Understand career opportunities through sociology.
CO 3	Understand social change & modern society.
B.A.II Sem. III Paper-III Social Issues in India	
At the end of the course, students will be able to -----	
CO 1	Understand the nature of social problems in India.
CO 2	Provide solutions to social issues.
CO 3	Understand the nature of current socio-cultural, economic and legal issues (Ex.old age, female foeticide, urbanization, unemployment and cyber crime)
CO 4	Be aware of contemporary social problems in India.
B.A.II Sem. III Paper-IV Social Movements in India	
At the end of the course, students will be able to -----	
CO 1	Understand the nature of social movements in India (Ex.peasant, Dalit and Tribal)
CO 2	Understand the importance of social movements.
CO 3	Understand varieties of ideas and debates about India.
CO 4	Understand multiple socio-political forces, ideologies which shape nations.
CO 5	Become aware of contemporary social movements in India.
B.A.II Sem. IV Paper-V Gender and Violence	
At the end of the course, students will be able to -----	
CO 1	Understand the nature of gender and violence.

CO 2	Become aware of gender equality.
CO 3	Understand domestic violence.
CO 4	Become aware of Sexual Harassments at Workplace through Vishakha Guideline Act,2013
B.A.II Sem. IV Paper-VI Sociology of Health	
At the end of the course, students will be able to -----	
CO 1	Become aware of social health.
CO 2	Understand socio-medical aspect of society.
CO 3	Learn the basic concept in sociology of health.
CO 4	Understand policies of Government of India regarding health.
B.A.III SEM V PAPER VII WESTERN SOCIOLOGICAL THINKERS	
At the end of the course, students will be able to -----	
CO 1	Be acquainted with sociological thoughts of the pioneers in sociology.
CO 2	Become aware of the perennial nature of structure versus agency.
CO 3	Develop conceptual understanding of social facts and characteristics.
CO 4	Apply theory in society.
B.A.III Sem. V Paper-VIII Methods of Social Research	
At the end of the course, students will be able to -----	
CO 1	Impart basic research skills.
CO 2	Learn various steps in conducting research.
CO 3	Be acquainted with different types of research and issues in research.
CO 4	Understand the utility of social research for social development.
B.A.III Sem.V Paper IX Rural Sociology	
At the end of the course, students will be able to -----	
CO 1	Understand the profile of rural community.
CO 2	Learn basic concepts of rural community and rural development.
CO 3	Gain conceptual clarification of *Panchyat Raj* system.
CO 4	Become aware of government schemes for rural development.
B.A.III Sem. V Paper- X Industrial Sociology	
At the end of the course, students will be able to -----	
CO 1	Acquaint with the structure of industry and industrial society.
CO 2	Understand industrial organization and its functioning.
CO 3	Understand industrial management system.
B.A.III Sem. V Paper-XI Human Rights	
At the end of the course, students will be able to -----	
CO 1	Develop conceptual understanding of human rights.
CO 2	Identify issues and problems relating to the realization of human rights.
CO 3	Understand the nature and role of human rights in India.
CO 4	Contribute to the resolution of human rights issues and problems.
CO 5	Educate the society about the human rights and duties in order to create responsible citizenry.
B.A.III Sem.VI Paper-XII Indian Sociological Thinkers	

At the end of the course, students will be able to -----	
CO 1	Understand diversification in Indian society through the different ideologies given by various Indian Sociologists
CO 2	Sensitized about contemporary Indian issues.
CO 3	Understand theories of Indian sociological thinkers.
B.A.III Sem.VI Paper-XIII Methods of Social Research	
At the end of the course, students will be able to -----	
CO 1	Learn basic research skills.
CO 2	Learn various steps in conducting research.
CO 3	Acquaint with different types of research and issues in research.
B.A.III Sem.VI Paper-XIV Rural Sociology in India	
At the end of the course, students will be able to -----	
CO 1	Understand Indian rural social structure.
CO 2	Understand the nature of village studies conducted by different Indian sociologists.
CO 3	Learn about the changing power structure in rural community.
B.A.III Sem.VI Paper-XV Industrial Sociology	
At the end of the course, students will be able to -----	
CO 1	Understand the workers' role and workers' relations with industrial organizations.
CO 2	Analyse the changing trends in industrial relations.
B.A.III Sem.VI Paper-XVI Social Welfare	
At the end of the course, students will be able to -----	
CO 1	Understand terms and concepts of social welfare with historical background.
CO 2	Understand the functions of various social welfare departments.
CO 3	Use knowledge of social welfare in day to day life practices.
CO 4	Analyse critically Indian social welfare and government policies.
B.A-III(Change in Syllabus) (2020-2021)	
B.A.III Sem.V Paper-IX Political Sociology	
At the end of the course, students will be able to -----	
CO 1	Acquaint with the major concepts ,theoretical approaches and perspectives of political sociology.
B.A.III Sem.V Paper-XI Sociology of Religion	
At the end of the course, students will be able to -----	
CO 1	Learn the distinctiveness of sociological approach in the study of religions.
CO 2	Understand aspects of religion in contemporary times such as secularism and multiculturalism.
B.A.III Sem. VI Paper-XIV Social Anthropology	
At the end of the course, students will be able to -----	
CO 1	Develop conceptual understanding of anthropology.
CO 2	Understand social aspects of tribal communities in India.
B.A.III Sem.VI Paper- XVI Urban Sociology	
At the end of the course, students will be able to -----	

CO 1	Understand urbanization as an important aspect of modern society.
CO 2	Learn the key theoretical perspectives for understanding urban phenomena in historical and contemporary contexts.

M.A. Economics
Programme Specific Outcomes

After completion of postgraduate programme in Economics, students will be able to -----

PSO 1	**Develop an economic way of thinking and enable them to make rational economic decisions.**
PSO 2	**Understand the economic world around them.**
PSO 3	**Become aware of recent developments in economic theory.**
PSO 4	**Develop an aptitude to critically analyze economic problems and find solutions.**
PSO 5	**Develop entrepreneurial skills.**
PSO 6	**Develop employability skills.**

M.A. Economics
Course Outcomes

M.A.I Micro Economic Analysis	
At the end of the course, students will be able to -----	
CO 1	Learn about important microeconomic concepts.
CO 2	Understand the functioning of different types of markets.
CO 3	Get acquainted with pricing strategies.
CO 4	Acquire the required skills to make economic decisions.
M.A.I Ecological & Resources Economics	
At the end of the course, students will be able to -----	
CO 1	Learn the importance of environment.
CO 2	Develop a sense of responsibility towards environment.
CO 3	Be aware of the methods of properly utilizing natural resources and preventing resource degradation.
M.A.I Agricultural Economics	
At the end of the course, students will be able to -----	
CO 1	Understand agricultural economics and theories of agricultural development, etc.
CO 2	Understand the economics of agricultural production analysis the factor-product, factor-factor and product-product relationship.
CO 3	Understand the economics of farm management.
CO 4	Analyse the economics of agricultural risk management.
M.A.I Agriculture Development of India	
At the end of the course, students will be able to -----	
CO 1	Understand the concept of agriculture and economic development.
CO2	Analyse the problem of agricultural technology and irrigation.
CO3	Understand agriculture finance and trade, agriculture marketing and price.
M.A.I Principles and Practice of Co- operation	
At the end of the course, students will be able to -----	
CO 1	Know the meaning, principles of cooperation, cooperative credit structure, case study on cooperative banks.
CO 2	Learn about cooperative consumer, housing and labour societies.
CO 3	Know about agri-cooperative marketing, dairy and sugar cooperatives.

CO 4	Know various cooperative institutions in India.
M.A.I Financial Markets and Institutions	
At the end of the course, students will be able to -----	
CO 1	Know the structure of financial system.
CO 2	Learn about intermediaries in financial markets and All India financial institutions.
CO 3	Be aware of money market, capital market and stock exchange.
CO 4	Learn about risk management in financial markets.
CO5	Get to know various international financial markets and institutions.
M.A.I Public Economics	
At the end of the course, students will be able to -----	
CO 1	Demonstrate tax systems, expenditure programms, budgetary procedures, stabilization instruments, debt issues and levels of government, etc.
CO 2	Understand basic problems in use of resources and distribution of income.
CO 3	Understand fiscal institutions with a careful practical analysis of the issues which underline budgetary policies.
CO 4	Analyse the theory of public choice and public policy.
M.A.I Monetary Economics	
At the end of the course, students will be able to -----	
CO 1	Get thorough knowledge relating to the theoretical aspects of money.
CO 2	Understand Keynesian and post-Keynesian economics, evolution of money, demand for money, supply of money, inflation, interest rates, etc.
CO 3	Analyse the significant role of money in the economy.
CO 4	Analyse new concepts as well as monetary forces, real forces, their developmental role and limitations in shaping and influencing the monetary and related policies both at the national and international level.
M.A.II Statistics in Economic Analysis	
At the end of the course, students will be able to -----	
CO 1	Be trained in use of statistical tools in economic analysis.
CO 2	Acquire skills of quantifying the relationship between economic variables.
CO 3	Make prediction about economic variables and phenomenon.
M.A.II Macro Economic Analysis	
At the end of the course, students will be able to -----	
CO 1	Understand facts and latest theoretical developments of macroeconomics.
CO 2	Learn about national income accounting system.
CO 3	Get knowledge of inflation and business cycles.
M.A.II International Economics	
At the end of the course, students will be able to -----	
CO 1	Understand the causes of origin of international trade.
CO 2	Develop an understanding about the gains that international trade offers for participating countries.
CO 3	Develop insights into the policies pertaining to international trade.
CO 4	Understand the importance of balance of payments and various approaches to it.
CO 5	Learn about the economic rationale behind international economic integration
M.A.II Economics of Growth and Development	
At the end of the course, students will be able to -----	
CO 1	Acquire knowledge of economics of growth and development.
CO 2	Gain knowledge about issues related to development.
CO 3	Understand social and sectoral aspects of development.
M.A.II Economics of Labour	

At the end of the course, students will be able to -----	
CO 1	Demonstrate the labour market and macroeconomics.
CO 2	Understand micro and macro approaches to labour markets.
CO 3	Learn about discrimination, unemployment and labour contracts.
M.A.II Indian Public Finance	
At the end of the course, students will be able to -----	
CO 1	Analyse the issues related to tax system, expenditure programmes and debt issues.
CO 2	Understand deficit financing, federal finance and stabilization instruments.
M.A.II Cooperative Thoughts and Administration	
At the end of the course, students will be able to -----	
CO 1	Understand co-operative thoughts and administration.
CO 2	Learn leadership and human resource development.
CO 3	Analyse role of state in cooperatives.
M.A.II Advanced Banking	
At the end of the course, students will be able to -----	
CO 1	Achieve specific skills which are required for working in banking sector.
CO 2	Learn banking technology.
CO 3	Understand banking and cyber laws.
B.A. Economics **Programmes Specific Outcomes**	
After the three year degree progamme in Economics, students will be able to -----	
PSO 1	**Develop of an economic way of thinking.**
PSO 2	**Develop of an understanding about the economic world around them.**
PSO 3	**Become aware of the functioning of the economy and various sectors under it.**
PSO 4	**Develop entrepreneurial and employability skills.**
PSO 5	**Be Acquainted with and development of sensitivity towards environment and its connection with economic development.**
PSO 6	**Develop research aptitude among students.**
B.A. Economics **Course Outcomes**	
B.A.I Indian Economy I	
At the end of the course, students will be able to -----	
CO 1	Know the nature of Indian economy.
CO 2	Become aware of the challenges before Indian economy.
CO 3	Develop an understanding about India's population and its attributes.
CO 4	Acquire the required skills of analyzing problems pertaining to Indian economy.
B.A.I Indian Economy II	
At the end of the course, students will be able to -----	
CO 1	Get acquainted with the current status of India's agricultural sector.
CO 2	Know about the standing of India's industrial sector.
CO 3	Be made aware of the growing importance of services sector in the Indian economy.
CO 4	Develop an understanding about the nature and impact of economic reforms in India.
B.A.II Macro Economics Part I and II	

At the end of the course, students will be able to -----	
CO 1	Understand basic, primary and analytically important concepts, theories and policies in the working of the economy.
CO 2	Apply various concepts in the process of policy making and planning of economy.
CO 3	Understand basic theoretical framework underlying the field of macro-economics.
CO 4	Realize the theory of output and employment, particularly consumption function and investment function.
B.A.II Money And Banking	
At the end of the course, students will be able to -----	
CO 1	Understand the concept of banking.
CO 2	Acquire the skill of practical banking.
CO 3	Grasp the concept of RBI.
CO 4	Understand banking practices in India.
B.A.II Banks and Financial Market	
At the end of the course, students will be able to -----	
CO 1	Understand the features and structure of financial system in India.
CO 2	Understand the NBFIS in India.
CO 3	Acquire knowledge of banking reforms in India.
CO 4	Understand banking practices in India.
B.A.III Economics of Development	
At the end of the course, students will be able to -----	
CO 1	Learn the concept of development and its dimensions.
CO 2	Analyze problems of development confronting DCs and LDCs.
CO 3	Know about the determinants of development as implied in developmental theories.
CO 4	Realise the importance of various resources in the process of economic development of a country.
B.A.III Economics of Planning	
At the end of the course, students will be able to -----	
CO 1	Learn the concept of economic planning and its importance in developmental process.
CO 2	Get acquainted with planning machinary in India and the formation of FYPs.
CO 3	Develop an insight into the issues of economic planning.
B.A.III History of Economic Thought– Part I and II	
At the end of the course, students will be able to -----	
CO1	Understand the origin of economic thoughts.
CO2	Grasp the concept of classical economic thought.
CO3	Acquire knowledge of protectionism.
CO4	Realize various economic thoughts.
B.A.III Micro Economics	
At the end of the course, students will be able to -----	
CO 1	Be acquainted with the concepts of micro economics dealing with consumer behavior.
CO 2	Understand the theory of production, revenue and cost analysis.
CO 3	Understand supply side of market through production and cost behaviour of firms.
CO 4	Understand the link between microeconomics and macroeconomics.
B.A.III Market and Pricing	

At the end of the course, students will be able to -----	
CO 1	Study market structure.
CO 2	Understand market system.
CO 3	Understand and apply pricing methods in different markets.
CO 4	Get acquainted with factor pricing.
B.A.III Introduction to Research Methodology- Part I and II	
At the end of the course, students will be able to -----	
CO 1	Get acquainted with research in economics.
CO 2	Study various aspects of research in economics.
CO 3	Study and apply sampling techniques as a method of data collection.
CO 4	Use data processing and analysis.
B.A.III International Economics Part I	
At the end of the course, students will be able to -----	
CO 1	Know the concept of trade and trade theories.
CO 2	Learn about gains from international trade and ToT.
CO 3	Know about exchange rate and its types.
CO 4	Know various international institutions.
B.A.III International Economics Part II	
At the end of the course, students will be able to -----	
CO 1	Know the concept of balance of trad eand BoP.
CO 2	Become aware of foreign trade, eximpolicy and rupee convertibility.
CO 3	Learn about types, need and trend of foreign capital in India.
CO 4	Know about various international institutions.

Environmental Studies 2016-17 to 2020-21

B.A., B.Com. & B.Sc. Part II

At the end of the course, students will be able to -----	
CO 1	Understand the nature, scope and importance of the subject.
CO 2	Understand the multidisciplinary nature of study.
CO 3	Learn about types of natural resources, ecosystems, biodiversity and laws.
CO 4	Know about threats to biodiversity and conservation of biodiversity.
CO 5	Learn about environmental pollution and protection of environment from pollution.
CO 6	Protect environment and try to maintain ecological balance.