## **DEPARTMENT OF BENGALI(UG)**

### **PROGRAM OUTCOMES:-**

Students with a Bachelors Degree in Bengali will have:-

- 1. Knowledge and skills: Develop knowledge about our tradition, culture and socio-economic development.
- 2. Communication skills: Helps them to communicate with people belonging to every section of society .They learn to deliver their opinion with analytical approach, cordial communication skill is their USP.
- 3. Research Aptitude: Ability to follow basic research methodology, techniques. Analytical thinking leads them towards doing something different.
- 4. Feeling towards society: A sense of social and ethical responsibility brings oneness for all.
- 5. Ability to be an Exclusive Learner: Students will recognize the need and will have the ability to engage in lifelong learning to update knowledge and professional skills.

### PROGRAM SPECIFIC OUTCOMES:-

Students Graduating with a Bachelor Degree in Bengali will be able to:-

- 1. Have an analytical mind with a scientific attitude that will lead them to acquire knowledge.
- 2. Acquire knowledge about earlier literary pieces, linguistics and the recent trends of literary changes help to build up their literary skill. A socio economic background.
- 3. Gather the conception of our old values and ethics in comparison with modern literary works that will help them to learn the growth and

development of literature.

- 4. Make themselves aware about our roots. It helps them to keep it mind that we should respect not only our own Indian culture but also we should be open to alternatives like western literature also.
- 5. Students learn to dream and try to shape their career as they wish to see themselves settled in future.

#### SEMESTER- I

#### BAHBNGC101

### Sahityer Itihas(Prachin O Madhyjug)

After completion of the course students will be able to:

- 1. Have a developed idea of cultural mobility ancient period –to modern.
- 2. Describe the different period of History of Bengal.
- 3. Have Hypothetical Experience about poetry of Bengal at medieval age of literature.
- 4. Describe the linguistic feature of the literature at early and medieval age of Bengal.
- 5. Explain the socio- economic structure of Bengal.

### **SEMESTER-II**

### **BAHBNGC 201**

### History of Sanskrit and English Literature

After completion of the course the students will be able to-

- 1. Describe about the Epic- Different types of Epic and its features.
- 2. Gather knowledge about the earlier intellectuals like Valmiki, Vas, Vababhuti, Shudrak etc.
- 3. Analyze the text and develop knowledge about different characteristics of different ages.
- 4. Have analytical observations of literature in other Indian languages helps student to form clear notion.

#### **SEMESTER-III**

## **BAHBNGC 302 COURSE**

### CHHANDA- ALAMKAR

- 1. Students will be able to identify varied rhetorical differences.
- 2. They are able to describe different rhetorical theories and approaches.

- 3. They can apply it in their own creative circles.
- 4. Students will be able to evaluate the appropriateness of rhetorical choices in light of anticipated consequences.

### **SEMESTER-IV**

#### **BAHBNGSE401**

### BYABOHARIK BANGLA CHARCHA

- 1. For students who do not want to be a Teacher or Professor this skill enhancement course will help the students excel in professional courses.
  - 2. Through these courses they can acquire the basic knowledge of advertising.
- 3. By learning this course students can work for press. They learn to translate news editing etc.
  - 4. Students can acquire a skill for working in a publishing media and publishing house.

## **SEMESTER-V**

#### **BAHBNGC 501**

## UNOBINSHO O BINGSHO SHATABDIR KOBITA

After completion of the course the students will be able to know –

- 1. The trends of Bengali poetry before and after colonialisation.
- 2. How the way began with Madhusudan Dutta and lead to Sankha ghosh. Students learn identify the different changes in the forms and contents of poetry. The trend of modern poetry started from Madhusudan Dutta and went to Sankha Ghosh.
- 3. Students will be able to trace the development of aesthetic trends and different types of Literary movement.
- 4. Students will learn about Pre and Post colonial tendencies and a changing approach of life style in literature.

### **SEMESTER-VI**

#### **BAHBNG DSE605**

### LOK SANSKRITI O LOKSAHITYA

1. After this course students will have a good knowledge of folk lore, folk culture and a general

- overview of contemporary folk culture and history.
- 2. Students will have developed their taste for folk art, folk literature and in general folk song.
- 3. Students will be able to look beyond the orthodox career options and may choose an alternative career by practicing core study of folk culture.
- 4. Students will be able to secure vast knowledge about Dalit Literature.

### **DEPARTMENT OF BENGALI (PG)**

### **Programme Outcomes:**

- 1. Text in syllabus is not only a source of information to the students. They provide lessons of life and point to anomalies existing in society. The students develop into readers while reacting to the texts.
- 2. Students come in touch with critical papers available in websites and grow proficiency in different languages. Papers presentation at programmes, viva and Seminars enable them to overcome their usual nervousness regarding direct interaction with people.
- 3. Special papers in syllabus require group study that is an opportunity to communicate with others and learn to act.
- 4. To have access to higher education is to transcend the barriers of caste, religion and gender and realise one's identity as a member of greater humankind.
- 5. Literature imparts adequate knowledge as to society and moral values of civilisation. It acquaints one with political, economic and social conditions and issues. Literature draws attention to injustices and humiliations in flicked on woman in general everywhere. Thus, students comprehend the value of gender-equality as a policy.

## **Programme Specific Outcomes:**

- 1. Literature imparts adequate knowledge as to society and moral values of civilisation.
- 2. It acquaints one with political, economic and social conditions and issues.
- 3. Literature draws attention to injustices and humiliations in flicked on woman in general everywhere. Thus students comprehend the value of gender-equality as a policy.
- 4. Students gradually know about our past history. In continuous process they can measure difference between past and present time which is important for students to have a complete conception about their time and society.
- 5. In PG syllabus, there is a special paper. Students get clear and larger view about this particular wing of Bengali literature.

#### Semester I

### MABENGC101. BHASHAR ITIHAS O BHASHATOTWO

- 1. This paper contains universal linguistic method which gives them an overall view about linguistic behaviour of a language.
- 2. How a child learns to speak students become aware of this scientific process.
- 3. Students have an idea about the relation between Bengali with other languages of world.

#### Semester II

### MABENGC205: BISH SHOTOKER NIRBACHITO CHOTOGOLPO:

- 1. The newest genre of Bengali literature is short story. Students come to know about modern thought process and stylistic approach of modern Bengali literature with the help of this paper.
  - 1. The political and cultural transition period of Bengali literature is very important for us. With the help of this paper students get this important message.
  - 2. Students also know about the leftist and rightist literature movement

#### Semester III

### MABENGC303: BISH SHOTOKER ADHUNIK KOBITA:

- 1. Students get a picture of freedom movement, Second World War, black marketing, famine of our history. This period is crucial for literature.
- 2. The various types of poems and the multiple approaches of the writers make Bengali literature a precious stake in world literature. Students get involved with this aspect.
- 3. Students have an idea about the discriminative behaviour with poor people and their struggle.

### **Semester IV**

### MABENGMJE404: ADHUNIK BANGLA UPONYAS:

- 1. This special paper gives student a clear and inner view of a particular stream.
- 2. With this special paper they can carry their higher education.
- 3. The novels highlight the contemporary society thereby helping students in better understanding of the society in which they reside

### **DEPARTMENT OF BIOCHEMISTRY (UG)**

## **Program Outcomes (PO):**

- 1. After graduating in Science a student can do M. Sc. MBA., MCA. etc. courses and then go for higher studies.
- 2. After completion of further higher studies leading to Ph.D. and postdoctoral research a student can pursue his/her career as Assistant Professor, *C*linical Scientist, Research Associates, Chemist, Microbiologist, Biomedical Scientist, and Pharmacologist.
- 3. After higher studies he/she can start working as a R&D associate in pharmaceutical industry and discover new belongings in medicine to cure human diseases.
- 4. A B. Sc. graduate student can go for Civil Service examination, Indian Forest Service (IFS) and State Forest Service examinations.
- 5. They can be a food analyst who can perform standardized tests to determine the chemical, physical or microbiological features of products for human consumption or analytical chemist who can study and test the chemical composition and behaviours of many different substances.

# **Program Specific Outcomes (PSO):**

- 1. A student in Biochemistry honours can gather knowledge on the chemistry of life and many complex biochemical processes at a molecular level in living organisms like apoptosis, protein targeting, protein synthesis and many more.
- 2. After studying Biochemistry, he/she has learned different biological and chemical views of all the reactions occurring in every organism with different techniques in a detailed way.
- 3. He/she can gain knowledge on the theoretical and practical biochemistry and the ability to apply the acquired knowledge to provide best efficient solutions in biochemistry, viz., the characterization of biomolecules in research, mechanism of protein transport, process of protein degradation, different types of fermentation process and methods and isolation of industrially important microorganisms.
- 4. Biotechnology provides the knowledge of how different pharmacologically active secondary metabolites can be synthesized in the industry.

### **Course Outcomes (CO):**

## **SEMESTER I**

**Molecules of life (BSCHBCMC101):** students have learned many aspects related to human body, viz., how amino acids build protein, water's characteristics, carbohydrates, nucleic acids, how nucleotides are source of energy, different kinds of lipids.

### **SEMESTER II**

**Proteins (BSCHBCMC201):** in their curriculum, students getting comprehensive knowledge of structure-function relationship of proteins and their significance in physiology, diseases and applications in industry and medicine

### **SEMESTER III**

Metabolism of carbohydrate & Lipids (BSCHBCMC301): Students are enriched with knowledge of metabolism & biochemical functions of living systems and their utilities in disease diagnosis are being learned through paper like

#### **SEMESTER IV**

**Human Physiology** (**BSCHBCMC401**): furnishes adequate knowledge on integrated physiological responses for specific actions such as exercise, neuroendocrine signaling etc. and why it sometimes fail& 'Bioinformatics' (BSCHBCMSEC401) paper provides the knowledge **on the core concepts of bioinformatics**, including computational biology, database design and implementation, and probability and statistics.

### **SEMESTER V**

Concepts of Genetics (BSCHBCMC501): paper provides Comprehensive knowledge on the effect of chromosomal abnormalities during developmental stages as well as numerical and structural changes leading to genetic disorders in plants & animals. Develop critical understanding of molecular basis of genes and their interactions at population and evolutionary levels.

## **SEMESTER VI**

Genetic Engineering and Biotecnology (BSCHBCMC601): paper, students have come to know about the mechanism of Recombinant DNA Technology and its application in production of vaccines and recombinant proteins like human insulin, human growth hormone etc.

## **DEPARTMENT OF BOTANY (UG)**

# **Program Outcome (PO):**

- 1. After graduating in science stream a student can appear before competitive tests like JAM, CAT, GMAT and PG entrance test of different Universities to secure their berth for higher studies at postgraduate courses like M.Sc., MBA., MCA.etc.
- 2. A B. Sc. graduate student can go for Union and State Civil Services examination as well as Indian Forest Service (IFS) and State Forest Service examinations.
- 3. After completion of Master's Degree, a student can go for higher research in the field of their interest. For that purpose, they can also appear before the competitive examinations like NET/SET/GATE to be eligible for research fellowship, Assistant Professorship and also for admission in M. Tech. course.
- 4. After completing B. Sc. Examination, a student can choose teaching profession in school and also can go for other competitive examinations to get a Govt. service.
- 5. After completion of further higher studies leading to Ph.D. and postdoctoral research a student can pursue his/her career in the position of a Scientist in the research institutes as well as in the research & development departments (R & D) of the suitable industries. They can also take up the challenges to develop entrepreneurship in some applied areas.

## **Program Specific Outcome (PSO):**

- 1. Studying Botany Honours a student can acquire knowledge on the plant kingdom especially how advancement occurs during the course of evolution. A clear concept grow in their mind about different tiers of the plant world such as algae, fungi, bryophytes, pteridophytes, gymnosperms, and angiosperms: their interrelationship on the basis of evolution, domestic and commercial uses, modes of reproduction and how to handle a plant specimen and many more.
- 2. A student of Botany Honours can gather knowledge on identification of different types of plants; their characteristic features, medicinal properties and economic importance.
- 3. Botany as a subject is important in the area of economic productivity because it is involved in the study of crops and ideal growing techniques that help farmers in increasing crop yield. Knowledge on horticulture and plant breeding also helps in crop improvement and productivity.
- 4. The study of plants is also important from ecological point of view. Students learn in their course how plants protect the environment. They can also gain a sound knowledge

- on the ecological relationship between plants and animals in an ecosystem as well as how any disharmony in this relationship harms the environment.
- 5. Students can learn in plant biotechnology, a specialized area of Botany, of how plant cells can be manipulated to synthesize different pharmacologically active secondary metabolites and nutraceuticals in the industry. They can also gain knowledge on how some improved and advanced crops and vegetables can be produced with the advent of the genetic engineering. Students are really delighted to know that plant biotechnology has emerged as a promising future alternative of conventional breeding and agricultural practices.

## **Course Outcome (CO):**

- 1. After studying the paper 'Phycology and Microbiology' [BSCHBOTC101] a student can gather knowledge on bacteria, virus, algae and their economic importance.
- 2. 'Mycology and Phytopathology' [BSCHBOTC201] provides knowledge on identifying the common plant diseases, their pathogens and control measures.
- 3. 'Morphology and Reproductive Biology of Angiosperms' (BSCHBOTC302) provides knowledge on the types of leaves, fruits, flowers, pollination and its mechanism, fertilization and development of embryo and seed.
- 4. After studying the paper 'Pant Systematics' (BSCHBOTC303) students have gained knowledge on plant taxonomy, concept of hierarchy and categories, plant classification and identification of a specific plant.
- 5. 'Plant Ecology and Phytogeography' [BSCHBOTC401] provides knowledge on the core concept of ecology, its biotic and abiotic factors, the phytogeographical divisions of India.
- 6. After studying the paper 'Plant Physiology and Metabolism' (BSCHBOTC501) a student can acquire knowledge on the plant-water relations, mineral nutrition, nutrient Uptake, plant growth regulators, translocation of food, respiration and photosynthesis etc.
- 7. The paper 'Cytology and Genetics' (BSCHBOTC502) provides knowledge about the cell structure and functions, Mendelian genetics, linkage, crossing over, chromosome mapping, numerical and structural aberration of chromosomes, and also the fine structure of gene, its mapping and gene mutations. By studying this paper students have learnt how launching of variations in genetics influence on the evolution.

8. The paper 'Molecular Biology' (BSCHBOTC601) provides knowledge not only about the synthesis, structure and function of biologically active macromolecules such as nucleic acids, protein, carbohydrates, and lipids but also about the genes coding these molecules. In this paper students learn in details about the contribution of some genius Nobel laureate scientists in the challenging topics of DNA replication, transcription, translation (protein synthesis), genetic code and gene regulation.

### **DEPARTMENT OF CHEMISTRY (UG)**

## **PROGRAM OUTCOME (PO):**

- 1: After successfully completing the 3 years in B.Sc, students will be able to demonstrate an understanding of major concepts in all areas of chemistry. After graduating students can pursue higher studies.
- **2:** Students can design, carry out, record, and analyse the results of chemical processes using critical thinking and scientific knowledge.
- **3:** Students will acquire understanding, classroom behaviour, laboratory behaviour and proper chemical and instrument handling, data analysis, observation power and logical thinking.
- **4:** Students will be able to resolve problems and get to a logical decision by thinking carefully and autonomously.
- **5:** For long-term development, students can figure out how to take the green way for chemical reactions.
- **6:** Outside of the scientific community, students can raise awareness of the impact of chemistry on the environment, society and development.

## PROGRAM SPECIFIC OUTCOME(PSO) (B. Sc. Chemistry):

- 1: B.Sc. (H/P) in Chemistry provides a backbone in all the traditional branches of physical, inorganic, organic and analytical chemistry. After completion of the degree, students will gainan overall theoretical knowledge for interpretation of various problems of chemistry and understand their importance in daily life.
- **2:**The practice of hands-on experiments in the laboratory will make students confident for proper handling of chemicals with precautions.
- **3:**Exposure to different instruments and spectroscopic tools will skill up students to correlate theory and its practical application.
- **4:** Students can establish their future in any branch such as Bio-medical Chemist, Chemical Engineering Associate, Industrial Research Scientist, Lab Chemist, Materials Technologist,

Production Chemist, Production Officer, Quality Controller, R&D Associate, Safety Health,

Environment Specialist etc.

5:Students can avail the opportunities in government services through public service

commission particularly in the field of food safety, health inspector, pharmacist etc.

**6:**Students will achieve the skills required to be placed in graduate school, professional school

for teaching.

**COURSE OUTCOME (CO):** 

**SEMESTER1: (BSCHCEMC101):** 

**Inorganic Chemistry-I** This course will describe the quantum mechanical model of the atom

including justification of quantum theory; the development of the periodic table as a method

of organizing elements, its application for investigating the characteristic properties of metals,

non-metals, and metalloids and classification of elements according to their properties to

correlate their reactivity and stability; the history and progress of chemistry of bonding between

atoms, from valence bond theory, concept of hybridization to molecular orbital theory with

detail description of different types of bonding, covalent, ionic, metallic and non-bonding

interactions. All these ideas are very important to strengthen basic concept of chemistry which

students can apply for designing new molecules for different application as per need both in

academia and industry.

**SEMESTER-2: (BSCHCEMC201):** 

Physical Chemistry – I This course will explain basic properties of gas molecules, their nature

of motions and energy distribution in three dimension; the nature of flow of fluids and its

correlation to viscosity and surface tension; and structural aspect of crystalline solid. Concept

of ionization of solids in aqueous medium will also be explained in detail. Through this course

the students will have in-depth knowledge of the properties of gaseous, liquid, solid substances

and ionic aqueous solution chemistry which has a huge application in wind technology for

power production, pharmaceutical industry, biological research, establishment of various

important reaction mechanism and many more.

### **SEMESTER-3:**

### (BSCHCEMC202):

**Organic Chemistry** – **III** This course will describe different important organic compounds having Nitrogen as a constituting element, heterocyclic compounds, polynuclear hydrocarbons, organometallic compound sand their comparative basic nature, solubility, other physical properties, established methods of their preparation, reactions with detail mechanisms. This course will also enlighten the mechanism of different types of rearrangement reactions, some important established Name reactions. This knowledge will help students to design and synthesize new such compounds for various applications as drugs, fertilizers, pesticides, paints, catalysts, mimicking biological processes and many more.

# **SEMESTER-4:**

### (BSCHCEMC401):

Inorganic Chemistry – III This course will discuss the effect of organic ligands around a transition metal ion in terms of splitting of degenerate d-orbitals in different energy levels with respect to number of incoming ligands, their strong or weak electronic field effect to explain the color, magnetic properties of the metal complexes with the light of CFSE. Mechanistic pathway of ligand substitution reaction in metal-ligand complexes of different geometry and categorization of the mechanistic pathways will also be explained. Through this course students will learn basic complexation chemistry of transition metal ions and lanthanide ions, their differences in complexation and reactivity. They will have a core knowledge for strategic design and synthesis of such metal complexes which can be considered as the heart of applied chemistry. Such metal complexes have countless contributions in drug industry, catalysis, preparation of magnetic materials and sensory application.

#### **SEMESTER-5:**

## (BSCHCEMC501):

**Organic Chemistry** – **V** This course will give an idea of strategic design principal of organic molecules, strategic approach for their synthesis to predict economic route involving economic and green intermediates. This course will also discuss the classification, physical properties, working mechanism of important biomolecules and bioenergetics and Pharmaceutical

Compounds. In this course the students will learn basis structure, classification and working mechanism of biologically involved molecules. They also have the idea of energetics of biological process and importance of bio catalysis for performing energy production reactions in our body in normal temperature, pressure and neutral pH. All these basic information will lead them to think mimicking in-vivo reactions in practice involving catalysis.

### **SEMESTER-6:**

## (BSCHCEMC602):

Physical Chemistry – IV This course will discuss the energetics of chemical reaction and effect of temperature, pressure, catalyst to produce maximum yield of product in a chemical reaction; third law of thermodynamics and statistical approach to interpret entropy and stability of a system; basic idea of symmetry elements and operations, point groups and their group multiplication table; Quantum Chemistry and primary photophysical processes, laws of photochemistry, quantum yield, photochemical equilibrium and their applications in photosensitized reactions. All these description is very essential to understand the mechanistic pathway of any reaction.

#### **DEPARTMENT OF CHEMISTRY (PG)**

#### **PROGRAM OUTCOME:**

- 1: After successfully completing the M.Sc, students will be able to demonstrate an understanding of major concepts in all areas of chemistry. Students can pursue higher studies for self-enrichment.
- 2: Students can design, carry out, record, and analyse the results of chemical processes using critical thinking and scientific knowledge.
- **3:** Students will be able to resolve problems and get to a logical decision by thinking carefully and autonomously.
- **4:** For long-term development, students can figure out how to take the green way for chemical reactions.

## PROGRAM SPECIFIC OUTCOME:

- **1:** After completion of the degree, students will gain an overall theoretical as well as practical knowledge for interpretation of various problems related to chemical research.
- 2: Profound exposure towards practical of hands-on experiments in the laboratory will make students confident for proper handling, synthesis, purification and characterization of chemical compounds with precautions.
- **3:** Exposure to different instruments and spectroscopic tools will skill up students to correlate theory and its practical application.
- **4:** Students can establish their future in any branch such as Bio-medical Chemist, Chemical Engineering Associate, Industrial Research Scientist, Lab Chemist, Materials Technologist, Production Chemist, Production Officer, Quality Controller, R&D Associate, Safety Health, Environment Specialist etc.
- **5:** Students can avail the opportunities in government services through public service commission particularly in the field of food safety, health inspector, pharmacist etc.
- **6:** Students will achieve the skills required to be placed in graduate school, professional school or colleges for teaching.

### **COURSE OUTCOME:**

### **SEMESTER I:**

Analytical Chemistry General I (MSCCHEMC104): This course will describe the application of counting statistics in analytical and nuclear measurements; different type of extraction and separation techniques like solvent (Craig) extraction, Chromatography etc; Different methods of analysis like TGA, DTA, DSC and fundamental and application of electro analytical methods. This course will help students to produce pure compounds and characterization of their physical properties.

#### **SEMESTER II:**

Organic Chemistry General II (MSCCHEMC202): This course will discuss some very important organic name reactions with mechanism; stability and energetics of different reaction intermediates; types and application of synthetic and biopolymers; chemistry and function of some major groups of natural products such asterpenoids, alkaloids, carbohydrates etc; and physiochemical principles and basis of drug design, quantitative description, physicochemical approach of drug molecules. Diverse knowledge of the course will enrich students towards more practical applications of their learning and expose academic and industrial dependency.

## **SEMESTER III:**

Advanced Physical Chemistry General (MSCCHEMC303): This course will explain in depth applicative knowledge of group theory in molecular vibration, crystal field theory; detail discussion of crystallography; bulk and external and internal surface structure of solids and its application in adsorption and catalysis; basic concepts, classification, nomenclature and determination of different physical properties of polymers; several biophysical properties and detailing of the underline theory of some spectroscopic methods. This knowledge will help students to understand several experimental observations and to establish the reason behind a problem.

### **SEMESTER IV:**

**Inorganic Chemistry Major II (MSCCHEMMJE401):** This course will give an idea of electrochemical studies of redox non-innocent ligands and metal complexes and model case correlating biological processes; fundamentals of complementary and non-complementary

electron transfer redox reaction mechanism; electron transport in biological systems and their simulations; inorganic photochemistry in biological processes and their model studies, applications of photochemical reactions of coordination compounds - synthesis and catalysis, solar energy conversion and storage; and application of organomethalic reactions. In this course, students will learn in depth subject materials for application in both industry and academia.

### **DEPARTMENT OF COMMERCE**

#### **ACCOUNTS HONOURS**

#### PROGRAM OUTCOME

# **PROGRAM NAME : B.Com Hons (Accounting)**

After completing the B.Com Hons (Accounting) program, the students will be –

- i) understand the accounting issues related to business and also able to acquire in-depth and contemporary knowledge in the field of business studies, commerce and management;
- ii) understand of general business functions impacting organization and will develop attitude of working effectively and efficiently in modern business environment;
- iii) acquire interpersonal and communication skills and can develop research skills to comprehend, analyse, reflect and critically evaluate information gathered from primary and secondary sources;
- iv) understand ethical, social sustainable business issues;
- v) communicate and collaborate in terms of business, professional and social interactions;

## PROGRAM SPECIFIC OUTCOME:

- i) Enriched with the knowledge of Financial Accounting, Cost Accounting, Basic of Finance;
- ii) ready to acquire the advanced knowledge of Financial Accounting popularly known as Corporate Accounting, Advanced Cost Accounting etc;
- iii) Understanding the theoretical framework of accounting, costing, basic of finance;
- iv) learned some specific accounting system like Consignment Business, Hire Purchase System of Business; Instalment Payment System of Business; Self Balancing and Sectional Balancing Ledger System;
- v) gathered the knowledge of accounting and cost control of material, labour and overhead cost;
- vi) able to understand the theoretical framework of Corporate Accounting, Accounting theory and Money Market;
- vii) able to understand the need and methods of measurement of income and liability;
- viii) developed Strategic thinking, Business acumen, Communication skills, Ethical and professional skills;
- ix) developed professional skills in Audit and Assurance, Governance and Risk Management, Financial Management, Corporate and Business Reporting, Human Resource Management, Management Accounting, Taxation, E- Commerce, Business Law

x) understand the objectives of Accounting standard and also understand the Regulatory Framework in India:

#### **COURSE OUTCOME**

#### Semester I

### **Financial Accounting**

By studying this Course / Paper, the students will be -

- i) understand the basic concepts of accounting and accounting process;
- ii) understand theoretical framework of accounting for incomplete records;
- iii)learn the accounting system of consignment and joint venture business;
- iv) acquire the knowledge of accounts of non-profit seeking concern;
- v)learn the accounting knowledge of bills of exchange and other accounting methods;

### **Semester II**

## **Corporate Accounting**

By studying this Course / Paper, the students will be-

- i) develop an understanding of accounting for share capital and debentures;
- ii) learn the concepts and legal aspects in accounting part of the companies act .2013
- iii To understand the accounting treatment of underwriting of shares and debentures;
- iv) acquire the knowledge of redemption of preference of preference shares and debentures and its treatment also;
- v) prepare the financial statement of a company as per schedule III (The companies act, 2013);

## **Semester III**

### **Advanced Financial Accounting**

By studying this Course / Paper, the students will be-

- i)understand the system for dissolution of a partnership firm in detail.
- ii) understand the accounting for hire purchase transactions and instalment payment system.
- iii) understand the basic concepts of branch and departmental accounting and apply the techniques for recording the transactions related to branches and departments of business organisations.
- iv) understand the process of ascertaining insurance claims for loss of stock and loss of profit policies.
- v) understand the different concepts of accounting for royalties and the accounting process.

#### **Semester IV**

#### **Direct Tax - II**

By studying this Course / Paper, the students will

- i) gathered an idea about capital gain.
- ii) enlighten the concept of income from other source.
- iii) understand the set-off and carry forward of losses.
- iv) determine the concept of assessment of individual.
- v) understand the deductions under sectionSec.80C, 80CCC,80CCCD,80DD,80DDB,80E, 80G, 80GG, 80GGA,80QQB,80RRB,80TTA and 80U.

#### Semester V

## **Advanced Corporate Accounting**

By studying this Course / Paper, the students will

- i) Understand Valuation of Goodwill- its Concept, Needs and Methods of valuation of Goodwill.
- ii) understand Valuation of Shares-its Concept, Needs, and Methods of valuation of Shares.
- iii) Understand Internal Reconstruction of companies and its Meaning, Provisions and Accounting, Surrender of Shares for redistribution; preparation of Balance Sheet after reconstruction.
- iv) collect the knowledge about External Reconstruction of Companies and its Concept of acquisition of business, Amalgamation, Absorption and Reconstruction, Accounting in the books of Transferor Company etc.
- v) understand the preparation of consolidated Balance Sheet of Holding Company and subsidiary company.

## **Semester VI**

### **Company Law**

By studying this Course / Paper, the students will -

- i) understand the Companies Act 2013 and different classification of companies operating in India.
- ii) learn the documents like memorandum of association , article of association , prospectus etc.
- iii) understand the power, function, appointment and remuneration of directors and other managerial personnel.
- iv) analyse the various types of share capital and the concept of dividend.

### **FINANCE HONOURS**

#### PROGRAM OUTCOME

B.Com Hons (Finance)

After completing this BCom Hons (Finance) Programme, the students will -

- i) Equip with knowledge in financial management;
- ii) develop the mindset, attitude and skill to become a finance professional;
- iii) acquire the knowledge of working capital management;
- iv) gain the knowledge of investment analysis and management;
- v) develop the knowledge of current banking system in India;

# PROGRAM SPECIFIC OUTCOME

- i) enriched with the knowledge of Financial Accounting, Cost Accounting, Basic of Finance;
- ii) ready to acquire the advanced knowledge of Financial Accounting popularly known as Corporate Accounting, Advanced Cost Accounting etc;
- iii) understanding the theoretical framework of accounting, costing, basic of finance;
- iv) learning some specific accounting system like Consignment Business, Hire Purchase System of Business; Installment Payment of System of Business; Self Balancing and Sectional Balancing Ledger System;
- v) gathering the knowledge of accounting and cost control of material, labour and overhead cost;
- vi) acquired the knowledge regarding Money Market, structure of Money Market, recent development in Money Market, Monitoring Authority of Money Market;
- iv) developed professional skills in Audit and Assurance; Governance and Risk Management; Financial Management; Corporate and Business Reporting; Human Resource Management; Management Accounting; Taxation; E- Commerce; Business Law.
- vii) understand origin of Banking, Emergence of Foreign Banks, E-Banking service;
- viii) understand source of Finance, Cost of Capital, Leverage, Capital structure;
- ix) gathered knowledge about process of Micro Finance, Risk management of micro Finance and Micro finance in India.

- x) acquired information about capital budgeting, techniques of capital budgeting, Dividend policy and financial control;
- xi) enriched by learning Public Finance. Here they learned about Public Revenue, Public Expenditure, Public Debt etc.;
- xii) enriched by leaning the paper Business Regulatory Framework, through this subject gain knowledge about the legal structure of the business world;

### **COURSE OUTCOME**

## Semester I

### **Basics of Finance**

By studying this Course / Paper, the students will be -

- i) understand the basic concepts of Finance and related;
- ii) develop the knowledge of different areas of finance in details;
- iii) acquire the knowledge of different sources of finances -long/short /and medium source;
- iv)learn the concept of time value of money;
- v) understand the concept of Risk- Return and also to measure the expected risk and return of a single Asset;

#### Semester II

## **Money Market**

By studying this Course / Paper, the students will -

- i) understand the Definition, Nature and Functions of Financial System and also the different components of financial system.
- ii) understand the Meaning, Features, classification and Importance of Money Market.
- iii) understand the structure the Money Market and also the functions of RBI.
- iv) acquire the knowledge of different instrument of Money Market-Call Loans, Treasury Bills, Commercial Bills, Commercial Papers and Certificate of deposits.
- v) understand the recent development of Money Market.

### **Semester III**

## **Business Mathematics**

By studying this Course / Paper, the students will -

- i) understand the concept of systematic processing and interpreting the information in quantitative terms to arrive at an optimum solution to business problems.
- ii) understand the proficiency in using different mathematical tools like matrices, calculus, linear programming and mathematics of finance in solving daily life problems.
- iii) understand the competence to use computer for mathematical computations, especially with Big Data.
- iv) get critical thinking and problem solving aptitude.
- v) understand the role played by mathematics in the world of business and economy.

## **Semester IV**

### **Financial Management**

By studying this Course / Paper, the students will –

- i) learn the basic concept of financial management, investment and capital investment options.
- ii)get knowledge of long term investment decisions, planning and risk of investment projected with it.
- iii)understand the conceptual knowledge of various accounting concepts, conventions and policies.
- iv)understand the accounting methods, practices and techniques particularly pertaining to joint stock companies.
- v)get practical knowledge regarding various financial aspects

### Semester V

#### **Public Finance**

By studying this Course / Paper, the students will be -

- i) Understanding the fundamentals of Public finance and how the public finance is works throughout the country for Economic development and at the same time understanding the principles of Social advantage among the community of a country.
- ii) Understanding the fundamentals of Public Revenue and from where government create revenue for development of the country, concept about direct and indirect tax and how tax collection are advantageous for government and also have some limitations of taxation system. Understanding of fundamentals of grants and different types of grants work as public revenue.
- iii) Understanding of classification of Public Expenditure and the Principles working out of Public expenditure. Secondly, discussion about the public expenditure purpose of union and

state government and analysis of effect of public expenditure among production, distribution and in economy Students also knowledgeable about the creation of Employment opportunities and how income inequalities will be reduced.

- iv) Understanding the fundamentals of public debt and how public debt effects on economic functions of a country and how Public Debt will be managed.
- v) Understanding the fundamentals of Federal finance and what are the sources of revenue and expenditure of the government bodies of central, state and local authorities and also understand the problems of financial matters and imbalances in financial issues.

### **Semester VI**

## **Indian Economy**

By studying this Course / Paper, the students will -

- i) learn the features of developing economy like India and the concept of national income.
- ii) learn the poverty alleviation measure and unemployment in India
- iii) identify the problems of Indian agriculture and impact of green revolution on Indian economy.
- iv) analyse the performance of public sector, private sector, small scale sector and MSME in India.
- v) learn about the five year planning and introduction of NITI AYOG.

#### **TAXATION HONOURS**

### PROGRAM OUTCOME

**B.Com Hons (Taxation)** 

After completing the BCom Hons (Taxation) Programme, I shall be able to -

- i) prepare a progressive mindset by acquiring disciplinary knowledge;
- ii) develop the skills and attitudes needed for critical thinking and adopting a comprehensive problem solving approach;
- iii) acquire enough knowledge to deliver and communicate information effectively with a mark;
- iv) gain the qualities of teamwork, cooperation and solidarity which can be seen as a vision of the current business world through full of competition;
- v) train myself to check unethical behaviour, falsification and manipulation of information;

### PROGRAM SPECIFIC OUTCOME

- i) enriched with the knowledge of Financial Accounting, Cost Accounting, Basic of taxation;
- ii) acquired the advanced knowledge of Financial Accounting popularly known as Corporate Accounting, Advanced Cost Accounting etc;
- iii) understood the theoretical framework of accounting, costing, basic of finance;
- iv) learned some specific accounting system like Consignment Business, Hire Purchase System of Business; Instalment Payment of System of Business; Self Balancing and Sectional Balancing Ledger System;
- v) gathered the knowledge of accounting and cost control of material, labour and overhead cost
- vi) learnt in detail regarding the system of taxation in ancient world, in ancient India and medieval India;
- iii) acquired knowledge regarding Taxation system of British India and post independent India;
- vii) learnt some basic accounting concept and convention;
- viii) understood the need and methods of measurement of income and liability;
- ix) applied those concepts to numerical illustrations and case studies;
- x) developed Strategic thinking, Business acumen, Communication skills, Ethical and professional skills;
- xi) developed professional skills in Audit and Assurance, Governance and Risk Management,

Financial Management, Corporate and Business Reporting, Human Resource Management, Management Accounting, Taxation, E- Commerce, Business Law

xii) understand Direct Tax, Indirect Tax, Tax Practice & Procedure,, Application of Computer in Accounting, Public Finance;income under capital gain, Income from other source, Clubbing of Income;

xiii) understand Public Finance, Public Revenue, Public Expenditure, Public Debt, Federal Finance and Government budget & Policy; Tax deduction, Tax collection, Tax recovery, Refund under GST; Entrepreneurship and Entrepreneur, Financing of new and existing ventures;

xvi) gathered information about the fundamentals of Financial management, time value of money ,Risk –return management; capital structure theories, capital Budgeting, cost of Capital gain, set off carry forward of losses in the next year; incidence of tax of individual, HUF and provision regarding SEZ etc.;

#### **COURSE OUTCOME**

#### Semester I

#### **Basics of Taxation**

By studying this Course / Paper, the students will -

- i) understand the basic concepts of taxation policy;
- ii) know the constitutional arrangements regarding taxation authorities in India;
- iii) understand the incidence of taxation;
- iv) acquire the knowledge of tax reforms in India;
- v) understand the concepts of direct taxation;

### **Semester II**

## **History of Taxation**

By studying this Course / Paper, the students will-

- i) understand of ancient taxation system, tax collection system and details of different historical aids.:
- ii) understand the taxation by the ancient experts like Manu, Kautilya, prescribed tax rate in the ancient taxation system, Maurya period taxation system, principles of ancient taxation system;
- iii) understand the taxation system in sultan period ,different types of tax on the said period, Taxation system in Mughal period;
- iv) understand the taxation system of British period. Fundamentals of Zamindari, Roytwari and Mahalwari system;
- v) understanding the later British Period taxation system;

#### Semester III

#### Direct Tax - I

By studying this Course / Paper, the students will -

- (i) understand the concepts and importance of Direct Tax;
- (ii) understand the technical terms related to Income Tax;
- (iii) understand the different incomes not chargeable to Tax;
- (iv) understand that how income from salary is computed;
- (v) understand that how income from house property is computed and Tax treatment of self occupied house property;

#### Semester IV

#### **Direct Tax - II**

By studying this Course / Paper, the students will -

i)understand an idea about capital gain.

ii)enlighten the concept of income from other source.I

iii)understand the set-off and carry forward of losses.

iv)determine the concept of assessment of individual.

v)understand the deductions under sectionSec.80C, 80CCCD,80DD,80DDB,80E, 80G, 80GG, 80GGA,80QQB,80RRB,80TTA and 80U.

#### Semester V

## **Assessment of Corporate Bodies**

By studying this Course / Paper, the students will -

- i) Understanding the fundamentals of company under Income tax act and the concept of previous year, Assessment year and residential status of an individual, company and HUF.
- ii) learned about the taxable income of a company, basics of Minimum Alternet tax and also compute the corporate tax liability and knowing about the tax rate, surcharge rate for a company assessee.
- iii) Understanding the deduction for company assessee and how losses of an assessee will be set off and carry forward to the next year. Learning about the tax credit and how distributed profits of a domestic company are taxable.
- iv) Understanding the provision regarding capital gain on compulsory acquisition of Land and Building and the provision regarding capital gain on asset transfer in case of shifting of industrial undertaking.

v) Understanding the concept of deemed dividend and provision regarding share of closely held companies received closely held companies without any consideration and learnabout share issued more that the face value

## **Semester VI**

# **Financial Management - II**

By studying this Course / Paper, the students will -

- i) learn the tax planning and various sources
- ii) learn the different discounted and non discounted techniques of evaluating capital budgeting.
- iii) ranking the various projects using different techniques of capital budgeting.
- iv) analyse the different dividend model and formulating the suitable policy.
- v) learn about financial control and advantages and limitations of financial control.

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## **Department of Computer Science (UG)**

## **Program Outcomes:**

- 1. Provide students with knowledge, general competence, and analytical skills in Computer Science on an advanced level.
- 2. Prepare them for academics, industry, and research.
- 3. Provide hands-on experience to apply computing skills in all other fields of study like Mathematics, Geography, Bio Sciences, Physics, Chemistry, Linguistics, Music, Medical Sciences etc.

# **Program Specific Outcomes:**

### **Students will:**

- 1. Become technology-oriented with the knowledge and ability to develop creative solutions, and better understand the effects of future developments of computer systems and technology on people and society as a whole.
- 2. Acquire some development experience within a specific field of Computer Science, through project work.
- 3. Gain ability to apply knowledge of Computer Science to the real-world issues.
- 4. Get familiar with current research trends in various fields of Computer Science.
- 5. Use creativity, critical thinking, analyses and research skills.
- 6. Get prepared for placement by developing personality and soft skills.
- 7. Gain ability to communicate scientific information in a clear and concise manner.
- 8. Build up programming, analytical and logical thinking abilities.
- 9. Know the recent developments in IT, future possibilities and limitations, and understand the value of lifelong learning.
- 10. Get an ability to participate in debates, discussions in the society constructively.
- 11. Gain management skills to cater the corporate sector.

#### **Course Outcomes:**

## Semester I

Programming in C

Knowledge gained:

- ❖ An understanding and provide complete knowledge of C programming language.
- ❖ Student will be able to develop logics which will help them to create program, applications in C.
- ❖ Also by learning the basic programming constructs they can easily switch over to any other language like:- C++, Java, etc.

# Skills gained:

- Logical thinking.
- **&** C Programming.

Competency developed:

- ❖ Ability to write procedural computer programs of moderate complexity in C.
- ❖ Developing real world application using C Programming Language.

#### Semester II

#### **Data Structure:**

Knowledge gained:

- Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms.
- Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs.
- Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs.
- Demonstrate different methods for traversing trees.
- ❖ Illustrate various technique to for searching, Sorting and hashing.
- Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack.
- Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.
- Summarize different categories of data Structures.

# Skills gained:

- Compare alternative implementations of data structures with respect to performance.
- ❖ Compare and contrast the benefits of dynamic and static data structures implementations.
- **Explain** the significance of dynamic memory management Techniques.
- ❖ Identify different parameters to analyze the performance of an algorithm.

## Competency developed:

- Choose appropriate data structures to solve real world problems efficiently.
- ❖ Design and implement an appropriate hashing function for an application.

Design algorithms to perform operations with Linear and Nonlinear data.

#### Semester III

## **Computer Architecture & Organization**

Knowledge gained:

- Understand the theory and architecture of hardwired and micro program controlled central processing units.
- ❖ Learn the concepts of parallel processing, pipelining and inter-processor communication.
- ❖ Define different number systems, binary addition and subtraction, 2's complement representation and operations.

### Skills gained:

- ❖ Analyze some of the design issues in terms of speed, technology, cost, performance.
- ❖ Design a simple CPU with applying the theoretical concepts Understand the architecture and functionality of central processing unit.

### Competency developed:

- ❖ Use appropriate tools to design verify and test the CPU architecture.
- ❖ Exemplify in a better way the I/O and memory organization.

#### **Semester IV:**

# **Database Management System**

Knowledge gained:

- Types of databases.
- Detailed architecture, define objects, load data, query data and performance tune databases.
- ❖ Writing SQL queries for the given problem statement.

## Skills gained:

- **Section** Establish a basic understanding of the process of Database.
- Develop ER diagram for representing conceptual data model.
- Convert ER diagram into a set of relations representing logical data model.

## Competency developed:

- ❖ Gain ability to handle large volumes of structured, semi-structured, and unstructured data using database technologies.
- ❖ Appreciate the need for DB approach and understand the components and roles of DBMS.
- ❖ Apply DB system development life cycle to business problems.
- ❖ Implement a set of relations in the chosen DBMS .
- ❖ Development and Administration using MySQL.

#### **Semester V:**

## **Object Oriented Programming with C++**

Knowledge gained:

- \* an ability to incorporate exception handling in object-oriented programs.
- ❖ an ability to use template classes and the STL library in C++.
- ❖ an understanding of the concepts of OOPs including inheritance and polymorphism.
- ❖ an ability to overload operators in C++.
- an understanding of the difference between function overloading and function overriding.

## Skills gained:

- ❖ Logical thinking.
- ❖ C++ Programming.

## Competency developed:

- ❖ Ability to write object-oriented programs of moderate complexity in C++.
- Developing real world application using C++.

### **Semester VI**

# **Optimization Techniques**

Knowledge gained:

- Gets a thorough knowledge on optimization of electrical and electronic engineering problems through classical optimization techniques.
- ❖ Gets a thorough knowledge on constrained non linear programming and dynamic programming.

# Skills gained:

• Optimized application development for efficiency

Competency developed.

#### DEPARTMENT OF ECONOMICS

### **Program Outcomes:**

- 1. The subject economics enables the student to build up a professional carrier as economist, economic planner, financial advisors and policy makers.
- 2. Learners can gain knowledge about planning board, ministry of economic affairs and other departments in details so that they can provide economic services by working as a deputy advisor or joint advisor in the planning commission of India.
- 3. They can become a rational and an enlightened citizen by spreading the government's initiative/schemes to the rural areas for the upliftment of the backward and poor section of the society for inclusive growth.
- 4. They can use the knowledge to study the real-world economic problems.

## **Program Specific Outcomes:**

- 1. The course enables the student to understand economic theories and functioning of basic microeconomics and macroeconomics systems.
- 2. They can collect different primary or secondary data from field survey or NFHS data set and study the effect of an independent variable on dependent variable by econometrics analysis.
- 3. They can learn about the statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models.
- 4. The course also acquaints with the measurement of development with the help of theories along with the conceptual issues of poverty and inequalities.

### **Course Outcomes (CO):**

#### Semester I

## Paper:Microeconomics theory – I, Paper Code: BSCHECOC101

- 1. After studying the paper Microeconomics theory I the students can differentiate the key difference between microeconomics and macroeconomics.
- 2. They will also learn about the different concept of equilibrium like static, dynamic and stability of equilibrium.
- 3. On successfully completion of the course the student will develop a theoretical understanding of consumer behaviour and decision making.
- 4. They will also gain idea about the market mechanism and can differentiate the different forms of market and will be able to describe the full mechanism of perfect competition.

#### **Semester II**

### Paper:Mathematical Economics – I, Paper Code: BSCHECOC202

- 1. After successfully completing the course Mathematical Economics I the students will learn how mathematics has a critical role in economics, the real number system, A.P and G.P.
- 2. They will also learn about the different types of functions like straight line, rectangular hyperbola, parabolic, circular, exponential and logarithmic functions.
- 3. They will also learn about calculus and its application in economics.
- 4. They will get an idea regarding difference and differential equations with their application on various economic problems.

#### Semester III

# Paper: Macroeconomics theory – II, Paper Code: BSCHECOC302

- 1. After studying the paper Macroeconomics Theory I they will learn about the main scope and nature of macroeconomics with emphasis on macroeconomic problems and policies.
- They will also get an overview of the major developments in macroeconomic theory, with particular emphasis on the policy prescriptions of the earlier macroeconomic school of thoughts.
- 3. The interrelation between the various macroeconomic variables and the way they impact upon the working of the economy is also covered thereby determining the course of the economy.
- 4. They will also learn about the different models of determination of employment, output and prices.

### **Semester IV**

# Paper: Statistical Method - II, Paper Code: BSCHECOC401

- 1. After successfully completing the paper statistical method I the students will acquire knowledge about the tabular and diagrammatic presentation of a data.
- 2. They will gain knowledge about different probability theories.
- 3. They will learn about the measures of central tendency like arithmetic mean, median and mode.
- 4. The measures of dispersion with the concept of Lorenz curve will clearly be in the mind of students.

### Semester V

## Paper: Public Finance, Paper Code: BSCHECOC501

- 1. Public finance paper is also an important paper. After studying this paper students will be able to develop and understand the various aspects of public choice theory.
- 2. They will also be familiar with the different aspects of fiscal federalism, acquaintance with the technique of cost-benefit analysis for project appraisal.
- 3. They will also learn about the various aspects of fiscal policy and dept management plan.
- 4. They can clearly explain the main principles of taxation.

#### Semester VI

## Paper: Basic Econometrics, Paper Code: BSCHECOC601

- 1. They will learn about data collection through primary survey
- 2. They will gain skill to apply OLS technique for estimation of regression coefficient
- 3. They will be able to judge the statistical significance of estimated coefficient
- 4. They will learn how a hypothesis can be generated

#### DEPARTMENT OF EDUCATION

### **Program Outcomes:**

# 1. Areas of Job Opportunities:

After completion of the course, one student may get opportunities in areas like - Museums, Public relations and Journalism, Editing and Publishing houses, Educational Departments, Creative/Technical writing, Home tuition, etc.

#### 2. Work Position:

After completion of the course, students may get work in positions like Teacher, Advisor, Non-fiction writer, Technical Writer, Novelist, Public relation journalist, etc.

There are more teaching opportunities in B. Ed, M. Ed and D.El.Ed Colleges.

### 3. Education Officer:

One student can become a Community Education Officer by studying Education.

### 4. Administrative Jobs:

Educational Administrator jobs can be found whose job will be to keep an eye on the educational institutions, the quality of education, the educational environment and the economic conditions.

# **Program Specific Outcomes (PSO):**

- 1: One student has learned about various sections of the Indian Constitution relating to education.
- 2: One student has learned about the progress of education from Ancient Times to Modern Times.
- 3: Students can know the structure of education from primary to higher education.
- 4: By reading the subject of Education, one student can learn about some features of Child Psychology.

5: One student can gain knowledge about the history of Teacher Education, and learn about some academic and administrative control on Teacher Education.

### Course Outcomes (CO):-

### **Semester I**

# HISTORY OF EDUCATION IN ANCIENT & MEDIEVAL (CC-2)

After studying the paper -

- 1. One student has gained knowledge about the impact of colonial education in India.
- 2. One student has learned the influence of western education system in the Indian context.
- 3. Students have gained the knowledge of different educations, policies, commission and committee under the British Rule and Post Independent India.
- 4. One student acquired knowledge about the contributions of great Indian Philosophers as well as the Western Philosophers.

#### Semester II:

# HISTORY OF EDUCATION IN PRE-INDEPENDENCE AND POST-INDEPENDENCE INDIA (CC-3)

After studying the paper -

- 1) One student has gained knowledge about the impact of colonial education in India.
- 2) One student has learned the influence of western education system in the Indian context.
- 3) Students have gained the knowledge of different educations, polities commission and committee under the British Rule and Post Independent Indian.

#### **Semester II:**

# PSYCHOLOGICAL FOUNDATIONS OF EDUCATION (CC-6)

After studying the paper -

- 1) One student is acquainted with the concepts of growth and development, their different stages and aspects.
- 2) One student has learned the nature and theories of learning basic concepts of teaching and its different methods and how different factors affect it.
- 3) One student has acquired the knowledge about the concepts, types, techniques and implications of guidance and counseling in education.

- 4) One student can understand the Psychometric methods and techniques for guidance and counseling.
- 5) One student has gained knowledge about Mental Health & Hygiene. He/She also came to know the treatment/methods for the preservation and enhancement of mental health.

#### **Semester IV:**

### **INCLUSIVE EDUCATION (CC-10)**

After studying the paper -

- 1) One student has gained the knowledge about Inclusive Education and to belong (affirmed, validated and nurtured) be safe and feel welcomed.
- 2) Students can identify the special children.
- 3) Students can understand the difference between special education, integrated education, and inclusive education.

### **Semester V:**

# **CONTEMPORARY ISSUES IN EDUCATION (CC-11)**

After studying the paper -

- 1) One student has learned about the concept, constitutional provisions, current status and problem of elementary education in India.
- 2) Students have gained knowledge about the meaning, aims & objectives of Primary to Higher education.
- 3) One student has gained knowledge about the contributions of some eminent Indian and Western Educators in the field of education.
- 4) One student has learned the function of different administrative bodies (like UGC, NCERT, SCERT, NCTE, DIET etc.)
- 5) One student has gained knowledge about the school organization which helps the teachers and others who are concerned about school education, continuously examine and evaluate the progress of education in a changing society.
- 6) One student has acquired knowledge about the role of Central and State Government in school organization and has gained knowledge about the administrative structure of W.B.B.S.E, W.B.C.H.S.E.

### **SemesterVI**

### **Fundamentals of Educational Research**

After studying the paper -

- 1. One student has gained knowledge about measurement and evaluation in education. He / She has learned how to classify educational objectives in terms of specific behavioral forms.
- 2. One student has learned about the techniques of measurement & evaluation (like observation, self reporting, records, mapping and project, NRT, CRT etc.)
- 3. One student has gained knowledge about the meaning, nature, scope, and types of research. He/She has came to know about the "Knowledge" and the ways that how to acquire "Knowledge" from various sources (like authority, tradition etc)

### **DEPARTMENT OF GEOLOGY (UG)**

# **PROGRAM OUTCOMES (PO):**

- 1) Scientific and critical thinking: Being the student in this program, we gathered information and knowledge about the physical, chemical and biological aspects of the planet EARTH. During this three years tenure we were learned some topics like the groundwater, mineral exploration, climate and earth etc. which have direct influence to the society. Total of 6 to 8 weeks duration of field program is the part of our program within the entire tenure of 156 weeks. During this field work program our critical and scientific thinking gradually develop with the help of our mentor. This fieldwork helps us immensely in our future during our post graduate and during our professional life.
- 2) **Triggers the quest of knowledge:** Basically, we the students come to college for gathering and upgrading the knowledge. The program is so designed that in every semester we obtain enough information regarding the different aspects of Earth. Some of which are theoretical for which information's are gathered from the books and journals supplied from departmental and college libraries and some of which are practical for which information's are obtained from our mentor. The practical information's are also acquired during field studies.
- 3) Interdisciplinary aspects: Basically, the program that we have gone through is applied and thus this the curriculum is mostly Interdisciplinary. In the second semester we have learned a subject GEOCHEMISTRY is mostly different aspects of chemistry applied on Earth's processes. In the third semester a subject PALAEONTOLOGY directly related to biology, in the sixth semester a subject ENGINEERING GEOLOGY has a direct connection with ENGINEERING structures. So, throughout the entire program we the students of this program not only study the subject proper we study the different subjects also.
- 4) **Economic development and Community development:** The course of this program helps the students to acquire knowledge about the prospecting of different metallic and nonmetallic mineral deposit which ultimately helps for the economic development of the nation. Similarly, this program helps to understand the method of prospecting of groundwater which immensely helps our agricultural based country.
- 5) **Enviormental aspects:** In Geology we learned about the interaction of organisms with their environment through time. During this course we came to know that how the environmental condition of Earth changed through time and parallelly the composition

and behaviour of organisms also changed. It was found that during all the major environmental changes in ancient time organisms are variously affected. In all the previous cases environmental change was completely natural. In contrast during the present increased level of industrialization we are putting severe strains on the natural environment and thereby unknowingly we are forcing many organisms verge to their death. Palaeontology helps us to understand that what happened to the organic world during this kind of environmental changes. The course tells us to find out a way of managing our existence so as to maximize human success while minimizing the negative aspects (sustainable development).

# PROGRAM SPECIFIC OUTCOMES (PSO):

- 1) Developing a clear concept about the mother EARTH and the different processes that operate on the planet. This helps in future research works which will help the country in proper planning.
- 2) Developing the skill for doing work in several government, public sector, undertaking, multinational and many such private sectors which deal with economically important minerals and prospecting.
- 3) Developing the expertise in dealing with availability of groundwater and various ground water pollution problems.
- 4) The historical dimension of geomorphology is indispensable for understanding landscape change and, therefore, the practice of environmental history.
- 5) Aware about the severity of present increased level of industrialization to the organic world including ourselves. The course encourages us towards sustainable management i.e., working with natural systems to sustain development but not at an unacceptable environmental cost.
- 6) Students develop proper understanding in remote sensing and geological science behind any major civil engineering construction. This helps the students to get jobs in civil engineering construction companies.

# **COURSE OUTCOMES (CO):**

**Semester I:** 

EARTH SYSTEM SCIENCE (BSCHGELC101)

- 1. The basic features regarding the third planet of solar family i.e., Earth are introduced here in this paper.
- 2. Introduces several processes, both external and internal that operated on the earth.
- 3. Basic concept on geological time frame is introduced here in the paper.
- 4. This paper helps students in understanding geology in broader perspectives.

### Semester II:

# STRUCTURAL GEOLOGY (BSCHGELC202)

- 1. Ability to understand different structural features of Earth
- 2. Ability to understand the mechanics of deformation
- 3. Complete knowledge to interpret Topographical maps

### **Semester III:**

### PALAEONTOLOGY (BSCHGELC303)

- 1. A major task of any historical science, such as geology, is to arrange events in a time sequence and to describe them as fully as possible. As evolution is unidirectional thereby unique fossil species are typical of successive time intervals. Earth history could not be deciphered until events that occurred in different places were related to one another by their position in a standard time sequence (Geological time scale).
- 2. The world today that we know was never the same. Our curious minds couldn't fathom the fact that we just turned up out of nowhere. The adventure of studying palaeontology gives us information's about the ancestors of *Homo sapiens* along with other ancient beings.
- 3. Ancient organisms' biological information, functional morphology and association with sediments or other fossils, gives us valuable palaeoenvironmental informations.
- 4. Fossils are indispensable guides for determining the palaeo positions of continents and seas in former times.

### **Semester IV:**

# METAMORPHIC PETROLOGY (BSCHGELC401)

- 1. Controls and types of Metamorphism.
- 2. Principles of geothermobarometry and textural identification.

3. Understand relationships between crustal heat flow, styles of metamorphism, P-T-t paths and plate tectonic settings.

### Semester V:

# **ECONOMIC GEOLOGY (BSCHGELC501)**

- 1. An overview of ore minerals, gangue minerals, tenor, cut-off grade, resources, reserves, and the ore forming process, as well as their definitions.
- Based on their tectonic settings, this course covers the distribution, geological settings, genesis, structure, and texture of India's metallic and non-metallic mineral resources.
- 3. Outline the fundamentals of mineral prospecting and the main methods for estimating reserves.

### **Semester VI:**

# EARTH AND CLIMATE (BSCHGELDSE602)

- **1.** This course helps to understand how earth's climate system works (controlling factors, response and feedbacks in the climatic system.
- **2.** It also helps us to understand the response of biosphere to earth's climate.

# **DEPARTMENT OF ENGLISH (UG)**

# **Programme Outcomes:**

- **1. Critical Thinking:** The undergraduate students will be able to process information, discern patterns, identify problems and provide solutions
- **2. Effective Communication:** The capability of expressing their ideas clearly and respond appropriately to the communications of others in speech and writing would be one of the key outcomes of this course.
- **3. Social Interaction:** The students will interact effectively with peers, faculty and management and effectively develop themselves in holistic cognizance of their surroundings and appreciate aesthetics in everyday life.
- **4. Effective Citizenship:** The students will be able to exercise their rights correctly, and carry out their duties as responsible citizens of their country
- **5. Ethics:** The students will be able to discern the moral conundrums that are present in everyday life and be able to identify the right path based on the value system inculcated in them by the institution

# **Programme Specific Outcomes:**

- 1. Literary Acumen: Through exposure to great literature, students should be able to discern the distinguishing features of good writing and be able to differentiate between it and inferior work. The primary objective is to help students understand important literature of the past and contemporary cultures and to equip them to find connections and continuities as well as identify disjuncture in these traditions
- **2. Cultural Integration:** Students of the undergraduate course will be aware of the importance of the coexistence of different cultural perspectives and be tolerant to views different from their own. The course seeks to enable students to use their study of literature to initiate cultural, ethical, and global awareness.
- **3. Academic Writing:** The students will be able to develop an argument in writing, state facts clearly and cogently and arrive at a clear conclusion using appropriate vocabulary and syntactic structures. The students will learn to read, analyse, and interpret works of literature, to acquaint them with the forms, structures and the aesthetics of style and techniques of literary works. Skills of interpretation, analysis, appreciation of literature as well as writing

and presentation skills that would eventually help in careers like journalism and media, publishing, research and teaching will be inculcated in the students.

- **4. Employability:** Students will have skills that are highly valued by many types of employers, including critical thinking skills and strong writing skills which make them employable in a wide range of professions, including teaching and publishing, script writing, stage directions/theatricals, translations, journalisms, media productions, documenting, reporting and producing documentaries.
- **5. Communicative abilities:** Students will become better speakers as they sharpen their qualities of public speaking and communication in different walks of life. This in turn will help them in becoming better orators and leaders.

### **Course Outcome:**

### Semester-I

# CC-1, BAHENGC101, British Poetry: Anglo-Saxon to Seventeenth Century

- 1. The opening course of English Honours deals with British poetry from Anglo-Saxon to Seventeenth Century. The first unit enhances students' knowledge on particular aspects of the literary history of British poetry
- 2. Socio-economic background and development from its Anglo-Saxon beginnings to the Seventeenth Century through milestones like Chaucer's works, the Renaissance, Puritanism and the Civil War will help the students in gathering a diverse knowledge about the historical aspects.
- 3. A selection of an entire range of representative works of major poets of this span, comprises the second unit which will provide students an ability to hone their understanding of poetry.
- **4.** The last unit provides important information about the basics of Rhetoric and Prosody, mentoring students to appreciate poetry beyond a sentence's literal word meaning.

### **Semester II**

# **CC-3 Shakespeare (BAHENGC201)**

- 1. The students will get to know Shakespeare's greatness as a writer.
- 2. Through Macbeth, students will learn about Universal moral values and humanity.
- 3. Macbeth will also teach the students about limitations even in pursuing their ambitions.
- 4. Students get to know about the power of art over time through the sonnets of Shakespeare.

5. The sonnets also teach them about the importance of inner beauty.

### **Semester III**

# **CC-5 BAHENGC301 (British Romantic literature)**

- 1. A student will comprehend the cause and effect of Romanticism in British literature that created a fresh wave in the domain of English literary circle.
- 2. He / She will be able to trace the creed of radical humanism that evoked a sense of international brother hood pertained to Romantic literature.
- 3. He / She will be able to explain how to sensitise human being from the onslaught of brute urbanisation.
- 4. A student will also be able to expand the faculty of imagination.

### Semester IV

# **BAHENGC401** British Literature: The Early Twentieth Century (CC-8)

- 1. Bring awareness of the literary periods and the trends of each literary period.
- 2. Introduce a bunch of English poetry; drama; prose and fiction.
- 3. Introduce works of different authors and their styles.
- 4. Make the students capable of analyzing the literary works.
- 5. Analyze the use of myth in British Literature.

#### SEMESTER- V

# AMERICAN LITERATURE BAHENGC502 (CC12)

- 1. Students are made aware of the concepts of Civil War and other major historical events in American history.
- 2. Students also get a peek into the idea and be able to comprehend the aspects of racism.
- 3. Students will be able to identify the progress of various forms of Literature throughout the ages in American Literature
- 4. Students learn about the cultural diversity of America and how it went on to become the Cultural melting pot of the world.
- 5. Students see the various similarities between the Indian Culture and the literature it has produced in comparison to its American Counterpart.

#### SEMESTER -VI

# WOMEN'S WRITING, BAHENGC602 (CC14)

- 1. Students are sensitized on the concepts of sex and gender, gender discrimination and exploitation of women in the patriarchal society.
- 2. Students can identify the ways gender, power, privilege and oppression play out across a range of cultures and human experiences.
- 3. Students learn to evaluate gender as a social construct and thus can make space for the women to construct her own identity.
- 4. Students learn the essential features of women's writing, specially the theoretical and literary aspects.
- 5. Creates a backbone for the research orientation of students on these less explored genres.

# **DEPARTMENT OF ENGLISH (PG)**

### **Programme Outcome:**

After completing M. A. English programme, the students would have:

- 1. Acquired required linguistic competence to be mastered in real life situations
- 2. Developed mastery of English language skills and forms to be used in explicitly meaningful contexts through literature and criticism
- 3. Appreciated and admired the master minds of literature and analyzed a variety of literary samples to determine the components, organizations, and structure of academic text
- 4. Acquired the skill to write analytically in a variety of formats, including essays, research papers, reflective writing, and critical reviews of secondary sources.
- 5. Learned to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres.

# **Programme Specific Outcome:**

At the end of the programme, the students will be able to

1. Read, analyse and interpret some of the most complex and well crafted works by masters

### of English Literature.

- 2. Identify, analyse, interpret and describe the vital ideas, values, and subject matters that appear in literary and cultural texts and recognise the manner in which those ideas, values, and subject matters tell and effect tradition and society, not only now and but also the past.
- 3. Develop quality writing standards and also be able to employ means necessary to make the writing seem more appealing and presentable to a wider variety of readers.
- 4. Analyse the relationship between authors, their texts and the presence of sociopolitical, economical or historical aspects that make the texts come to life. They will also be able to gather the interconnection that the events often have
- 5. Compare and contrast works written on a similar topic or understanding and analyse what makes the works different from each other. They will also be able to understand which elements to inculcate and what to eliminate while composing their own writings.

#### **Course Outcome:**

### Semester- I

# MAENGLC103: Shakespeare.

- 1) After studying this paper, the students will have learnt to bring about a qualitative approach in the understanding of Shakespearean plays.
- 2) They will also have learnt about the nuances of sonnet writing by Shakespeare.
- 3) Plays like King Lear and Measure for Measure have offered to the students the spectrum of Shakespearean drama and its various shades.
- 4) Students will become aware of the factors that make Shakespeare timeless after a detailed analysis of the writings.

#### Semester-II

### **MAENGLC201: Romantic Literature**

- 1. Students will gain a completely new perspective about Nature and its very strong presence through our life.
- 2. Students will be able to understand why the pursuit of science, if not done correctly, might lead to dangerous outcomes as seen in "Frankenstein".
- 3. Students will have learnt about the historical aspects of the then society and how revolutions often do not pan out in the way they are expected.
- 4. Students will grow appreciative of the geniuses that the Romantics were and how the changed the genre of poetry.

### **SEMESTER-III**

# **Literary Theory II (MAENGLC303)**

- 1. Studying this course makes students learn about the very sensitive issues like women's issues, gender issues, issues related to human psyche,
- 2. 3They will also learn how literature deals with environmental issues, etc.
- 3. Students become more aware of Feminist and gender issues that are the burning issues of our modern society. Women and people of other gender are much discriminated in our society because of their vulnerable position in the patriarchal society.
- 4. After studying the course "Literary Theory II", one learns a great deal about the functioning and complexities of human psyche, gender construction, the injustice meted out to women, etc.

# **Semester IV**

# **MAENGMJE401**: American Literature I

- 1. Students are made aware of the concepts of Civil War and other major historical events in American history.
- 2. Students also get a peek into the idea and be able to comprehend the aspects of racism.
- 3. Students will be able to identify the progress of various forms of Literature throughout the ages in American Literature
- 4. Students learn about the cultural diversity of America and how it went on to become the Cultural melting pot of the world.

# **DEPARTMENT OF GEOGRAPHY (UG)**

### **PROGRAM OUTCOMES:**

### 1. Self-identity:

Develop self-assurance and a feeling of self-identity in facing the real world.

# 2. Communication Skills and Leadership:

Develop strong communication skills that encourage individual as well as group leadership abilities.

**3.EffectiveCommunicationS**peak, read, write, and listen clearly in English and one Indian la nguage in person and through electronic media, and makesense of the world by connecting pe ople, ideas, literature, media, and technologies.

# 4. Critical Thinking:

Students will learn to assess challenges and validate realworld solutions by developing critica l thinking and abilities.

# **5.**Scientific thinking:

Develop an objective scientific approach as then students may tackle research challenges in Geography and related subjects.

# 7. Collaborative Activity:

Encourage student collaboration by allowing them to interact and participate in collaborative activities.

# 8. Environment and Sustainability:

Develop an environmental and Geographical ethics that focuses research and concerns on long-term sustainability.

# **Program Specific Outcomes (PSO)**

# 1. Conceptual Development:

The fundamental concepts and philosophical foundation physical geography and humanistic geography along with the issues suited to the needs of the contemporary world prescribed in each course is a perfect blend for a teaching faculty in school.

# 2. Idea of Landscape Diversification:

Understanding the landscape and its spatio-temporal evolution, knowledge of variation and distribution is compatible for any appropriate planning.

### 3. Understanding Ecology and Ecosystem:

Knowledge of structure and potentiality of biotic and abiotic elements is subtle for the dynamic dimensions of human and ecosystem relationships.

### 4. Human Resource Generation:

Learning human ability, perception and behavior to procure the geographical knowledge progressed over time, is essential to improve decision making exercise.

### 5. Socio-Environmental Problems and Issues:

Observation and identification of the critical problems and spatial issues locally and nation-wide are much sensible for sustainable development goals (SDGs).

# 6. Technological Awareness and Development:

Practical techniques of mapping, cartography, GIS software, interpretation of maps, photographs and images are an opportunity to digitally produce maps and modelling applications for innumerous field.

# 7. Field Based Knowledge:

Field based knowledge is essential to understand the ground reality, spatial patterns and processes which enrich the observation power through hand-on exercise.

# 8. Spatial, Statistical Tools and Techniques:

The basics and applications of spatial tools and techniques are essential to make the study more scientific and applicable by acquiring scientific

# 9. Case Study based Analysis:

Different problem-oriented case studies in local rural and urban area are essential, especially to find out the solutions to the lagging regions for their betterment based on first-hand information

#### **Course Outcome:**

### Semester I

# **BSCHGEOC101:** Geotectonic and Geomorphology (CC-1)

- 1. Explain principal terms, definitions and theories (e.g., conceptual approaches in geomorphology)
- 2. Describe landforms and land forming processes in different climate zones and tectonic regimes.
- 3. Explain different theories and models for landscape evolution.

4. Discuss the development of micro to mega scale landforms and their life spans assess the mode of formation, age and history for landform.

5. Describe the different methods we use to describe earthquake magnitude and intensity,

and name the ones we use most commonly today.

6. Assess the role of structure, stage and time in shaping the landforms, interpret

geological map and apply the knowledge in geological research.

Semester II

BSCHGEOC201: Geomorphology and Oceanography(CC-3)

1. Understand the theories and fundamental concepts of Geomorphology.

2. Study landforms and the related processes from the traditional concept to the

contemporary development in Geomorphology.

3. Acquire knowledge about types of folds and faults and earthquakes, volcanoes and

associated landforms.

4. Analyze the concepts of Oceanography.

5. Studying the behaviour and characteristics of the global oceans.

6. Physical and chemical properties of sea water; density, temperature and salinity; ocean

currents, waves & tides; sea level changes.

7. Understand the oceanic process and availability of resources.

**Semester III** 

**BSCHGEOC301: Climatology (CC-5)** 

1. Understand the elements of climate and it's impacts at different scales and also

comprehend the climatic aspects and it's bearing on the planet Earth.

2. critically analyse the introductions between the atmosphere and the surface(topography,

vegetation, build structures), and apply these understanding in an environmental decision

making context.

3. understand the impact of climate on agriculture and on different house types in different

regions of India.

4. understand the different meteorological processes and their different condition with

respect to different regions.

5. able to classify the micro climates based on the world climatic systems.

### **Semester IV**

# **BSCHGEOC401:** Geographical Thought (CC-8)

- 1. Scope, Content and interaction among the general branches of Geography.
- 2. Evolution of Geography theme all over the world from ancient to modern period of time.
- 3. Development of Geography in German, American and British school.
- 4. Development of Indian school of thought.
- 5. Idea of Sustainability, inductive and deductive nature of Geographical study stated using modern conceptual basis.

### Semester V

#### **BSCHGEOC501**

# **Settlement Geography (CC-11)**

- 1. Define various types of settlement and related terminology. Arrange different class of cities based on population or functional hierarchy;
- 2. Understanding the pattern and process of settlement generation and their abolishment; Nature, characteristics, determinant, system and dynamicity of any settlement. Relate manenvironmental relationship through settlement perspectives.
- **3.** Identify the construction of different size-form-types of settlement according to scale; predict and project settlement agglomeration, distribution, extension, expansion;
- 4. Analysis and interpret different issues in settlement studies; contemporary problem and prospect of urban settlement; global and local settlement related ongoing threats, proposal, managemental alternatives; Interpret settlement related theories from different scholars.
- 5. Compare among various settlement in any objectives; Evaluate settlement theories, their significancy, current usability, alternatives or modification;
- **6.** Create database to show most significance and burning issues in urban sphere; compilation of different variables of a particular settlement to get insight in highest extent; propose best suitable points to crate the problem.

Semester VI

**BSCHGEOC601** 

# Regional Geography of India and West Bengal (CC- 13)

- 6. Students will understand the regional setup of India and West Bengal in particular.
- 7. The relationship between physical and cultural regional aspects will be revealed.
- 8. Impact of physical and cultural factors on population distribution will be understood.
- 9. Regional problems and their probable solutions like regional disparity, imbalance and under-development will be addressed properly. Students may contribute to solve the problems of such issues at local level. In future the decision making ability of the students regarding the regional problems will be enhanced.
- 10. Students will be able to evaluate various government plans and initiatives to reduce the regional imbalances at local/regional/national levels. They will also realise the politics behind the regional issues in India.

### **DEPARTMENT OF GEOGRAPHY (PG)**

# **Programme Outcomes:**

- **1. Techniques and skills:** Develop proper skill and techniques to assess real-life problems and mitigates those with a suitable solution.
- **2. Confidence and communication skill:** Develop self-confidence, and effective communication skills to promote the leadership quality of a student.
- **3. Teamwork and cooperation:** Encourage students to cooperate and teamwork.
- **4.** Ethics and sustainability: Foster a sense of environmental ethics to make a move towards sustainability.
- **5. Scientific and research approach:** Develop a scientific approach and focus on research issues regarding various geographical aspects.
- **6. Social values and empathy:** Inculcate ethical values and empathy to social concern among the students
- 7. Discipline: Engrave a sense of discipline and lead them to the path of lifelong learning

# **Programme Specific Outcomes:**

- 1. Conceptual development: The concept and philosophical foundation of geographical studies are well suited for the need of the modern contemporary world and its various issues.
- 2. In-depth knowledge of sub-fields: the incorporation of special papers will inoculate in-depth knowledge of the sub-field of Geography. This will also enhance the quality of learning and interdisciplinary ideas.
- **3.** The idea of landscape diversification: Understanding the landscapes and their spatiotemporal evolution, knowledge, variation and distribution is compatible with any appropriate planning.
- **4. Understanding ecology and environment:** Knowledge of the structure and potentiality of the biotic and abiotic elements is suitable for the dynamic dimension of human and ecosystem relationships.
- **5. Human resource generation:** Learning human ability, perception and behaviour to procure the geographical knowledge progress over time, is essential to improve decision-making exercises.
- **6. Socio-environmental problem and issues:** Observation and identification of the critical problems and spatial issues local and nationwide are much sensible for sustainable development goals (SDGs).

- **7. Technological awareness and development:** Practical techniques of mapping, cartography, GIS software, and interpretations of maps, photographs and images are the opportunity to digitally produce maps and models for numerous fields and sectors.
- **8. Field-based knowledge:** Field-based knowledge is essential to understand the ground reality spatial patterns and processes which enrich the observation power through hands-on exercises.
- **9. Spatial, statistical tools and techniques:** the basic and applications of spatial tools and techniques are essential to make the study more scientific and applicable by acquiring scientific methodology of precise data handling, hypothesis generation, testing, analysis and suitable interpretations of complex phenomena.

#### **SEMESTER-I**

# MSCGEOGC101: Geographical Thought

- 1. The student can learn about systematic and regional approach in the development of philosophy of geography.
- 2. They can discuss the contribution and the history of the Greek and Roman philosophers.
- 3. They get idea about evolution of the philosophy of geography at different phases from ancient to contemporary.
- 4. They study about classical geography and its characteristics.
- 5. They learn the modern and post-modern geography and its characteristics.
- 6. They explore the quantitative revolution in the philosophy of geography.
- 7. They critically analyse about geostatic, neocratic and theocratic view in geography.

# **SEMESTER-II**

### **MSCGEOGC203:**

### Social, cultural and settlement geography:

- 1. Understand the scope and content of cultural geography.
- 2. Tracethedevelopmentofculturalgeographyinrelationtoallieddisciplines.
- 3. Understand the concept of cultural hearth and realm, cultural diffusion, diffusion of religion.
- 4. Developing the idea of cultural segregation, cultural diversity, technology and development

5. Learntherurahouse types, censuscategoriesofruralsettlementsandideaofsocialsegregation.

- 6. Learn the census definition and categories of urban settlements.
- 7. Differentiate between city-region and conurbation.
- 8. Analysethe functional classification of cities.
- 9. Acquiretheskillofidentifyingruralsettlementtypesfromtopographicalsheet.

### **SEMESTER-III**

### MSCGEOGC301:

# **Agricultural Geography and Landuse Planning**

- 1. Understanding the Scope, content and its relation with other branches of Geography.
- 2. Understanding the evolution of agriculture in India.
- 3. Trace the dynamism and evolutionary processes of agriculture as a discipline of geography over time.
- 4. Apply the knowledge of agricultural geography in identification and demarcation of region having agricultural importance using statistics.
- 5. Learn to plan the best possible uses of land applying suitable techniques over varied geographical locations.
- 6. Differentiate the Changing pattern of world agriculture on Tropical, Temperate and Mediterranean region and spatio-temporal variation of climate and their impact on agriculture.
- 7. Analysis the Land use techniques and surveys in different areas.
- 8. Develop the skill regarding optimum uses of land especially Wetland and Glaciated land.

### **SEMESTER-IV**

# MSCGEOGC403:

# Regional Planning and Research Methodology in Geography

- 1. The concept of the region, regionalization and regional planning along with the theories on recent development will be learned by the students.
- 2. Students will know about the concepts and methods of delineation of formal and functional regions.

- 3. Students will get an idea about various concepts of regional inequality, regional disparity and regional diversity.
- 4. Students will identify the best measures of inequality and various indicators of regional development.
- 5. The concept of research and research method will be learned by the students.
- 6. Students will learn the types and sources of data that will be required for the research and analysis.
- 7. They will also learn the processes of data management through various statistical techniques.
- 8. They will know the importance of research design, qualitative and quantitative research methods, referencing and bibliography.

### **DEPARTMENT OF GEOLOGY (UG)**

### **PROGRAM OUTCOMES:**

- 1) Scientific and critical thinking: Being the student in this program, we gathered information and knowledge about the physical, chemical and biological aspects of the planet EARTH. During this three years tenure we were learned some topics like the groundwater, mineral exploration, climate and earth etc. which have direct influence to the society. Total of 6 to 8 weeks duration of field program is the part of our program within the entire tenure of 156 weeks. During this field work program our critical and scientific thinking gradually develop with the help of our mentor. This fieldwork helps us immensely in our future during our post graduate and during our professional life.
- 2) **Triggers the quest of knowledge:** Basically, we the students come to college for gathering and upgrading the knowledge. The program is so designed that in every semester we obtain enough information regarding the different aspects of Earth. Some of which are theoretical for which information's are gathered from the books and journals supplied from departmental and college libraries and some of which are practical for which information's are obtained from our mentor. The practical information's are also acquired during field studies.
- 3) Interdisciplinary aspects: Basically, the program that we have gone through is applied and thus this the curriculum is mostly Interdisciplinary. In the second semester we have learned a subject GEOCHEMISTRY is mostly different aspects of chemistry applied on Earth's processes. In the third semester a subject PALAEONTOLOGY directly related to biology, in the sixth semester a subject ENGINEERING GEOLOGY has a direct connection with ENGINEERING structures. So, throughout the entire program we the students of this program not only study the subject proper we study the different subjects also.
- 4) **Economic development and Community development:** The course of this program helps the students to acquire knowledge about the prospecting of different metallic and nonmetallic mineral deposit which ultimately helps for the economic development of the nation. Similarly, this program helps to understand the method of prospecting of groundwater which immensely helps our agricultural based country.
- 5) **Enviormental aspects:** In Geology we learned about the interaction of organisms with their environment through time. During this course we came to know that how the environmental condition of Earth changed through time and parallelly the composition

and behaviour of organisms also changed. It was found that during all the major environmental changes in ancient time organisms are variously affected. In all the previous cases environmental change was completely natural. In contrast during the present increased level of industrialization we are putting severe strains on the natural environment and thereby unknowingly we are forcing many organisms verge to their death. Palaeontology helps us to understand that what happened to the organic world during this kind of environmental changes. The course tells us to find out a way of managing our existence so as to maximize human success while minimizing the negative aspects (sustainable development).

### **PROGRAM SPECIFIC OUTCOMES:**

- 1) Developing a clear concept about the mother EARTH and the different processes that operate on the planet. This helps in future research works which will help the country in proper planning.
- 2) Developing the skill for doing work in several government, public sector, undertaking, multinational and many such private sectors which deal with economically important minerals and prospecting.
- 3) Developing the expertise in dealing with availability of groundwater and various ground water pollution problems.
- 4) The historical dimension of geomorphology is indispensable for understanding landscape change and, therefore, the practice of environmental history.
- 5) Aware about the severity of present increased level of industrialization to the organic world including ourselves. The course encourages us towards sustainable management i.e., working with natural systems to sustain development but not at an unacceptable environmental cost.
- 6) Students develop proper understanding in remote sensing and geological science behind any major civil engineering construction. This helps the students to get jobs in civil engineering construction companies.

# **COURSE OUTCOMES (CO):**

### **Semester I:**

EARTH SYSTEM SCIENCE (BSCHGELC101)

- 1. The basic features regarding the third planet of solar family i.e., Earth are introduced here in this paper.
- 2. Introduces several processes, both external and internal that operated on the earth.
- 3. Basic concept on geological time frame is introduced here in the paper.
- 4. This paper helps students in understanding geology in broader perspectives.

### Semester II:

### STRUCTURAL GEOLOGY (BSCHGELC202)

- 1. Ability to understand different structural features of Earth
- 2. Ability to understand the mechanics of deformation
- 3. Complete knowledge to interpret Topographical maps

### **Semester III:**

# PALAEONTOLOGY (BSCHGELC303)

- 1. A major task of any historical science, such as geology, is to arrange events in a time sequence and to describe them as fully as possible. As evolution is unidirectional thereby unique fossil species are typical of successive time intervals. Earth history could not be deciphered until events that occurred in different places were related to one another by their position in a standard time sequence (Geological time scale).
- 2. The world today that we know was never the same. Our curious minds couldn't fathom the fact that we just turned up out of nowhere. The adventure of studying palaeontology gives us information's about the ancestors of *Homo sapiens* along with other ancient beings.
- 3. Ancient organisms' biological information, functional morphology and association with sediments or other fossils, gives us valuable palaeo environmental information.
- 4. Fossils are indispensable guides for determining the palaeo positions of continents and seas in former times.

### **Semester IV:**

# METAMORPHIC PETROLOGY (BSCHGELC401)

- 1. Controls and types of Metamorphism.
- 2. Principles of geothermobarometry and textural identification.
- 3. Understand relationships between crustal heat flow, styles of metamorphism, P-T-t paths and plate tectonic settings.

### Semester V:

# **ECONOMIC GEOLOGY (BSCHGELC501)**

- 1. An overview of ore minerals, gangue minerals, tenor, cut-off grade, resources, reserves, and the ore forming process, as well as their definitions.
- 2. Based on their tectonic settings, this course covers the distribution, geological settings, genesis, structure, and texture of India's metallic and non-metallic mineral resources.
- 3. Outline the fundamentals of mineral prospecting and the main methods for estimating reserves.

### **Semester VI:**

# EARTH AND CLIMATE (BSCHGELDSE602)

- 1. This course helps to understand how earth's climate system works (controlling factors, response and feedbacks in the climatic system.
- 2. It also helps us to understand the response of biosphere to earth's climate.

# **DEPARTMENT OF HINDI (UG)**

### PROGRAMME OUTCOME:-

- **1-Basic Concepts:** The students will know about the fundamental Concepts of Hindi literature, Chhayavadi poet, Hindi Vyakaran (Grammar). They will also know the concept of Linguistics and develop Reading, Writing & Communication skills.
- **2-Critical thinking:** The students will have the ability to analyze and predict socio political phenomena based on the study of existing socio economic determinants and past experiences. They will learn to explain and discuss critically the burning issues of contemporary Hindi literature as well as Hindi phenomenon.
- **3 Effective citizenship:** The course curriculum inculcates among students a basic understanding of the rights and duties of citizens and thereby to act as responsible citizens through the observation of important days and also inculcate the basic understanding of human Value, sense of Social Service, Critical temperament, creative ability etc.
- **4 Communication:** Students will be able establish linkages between academics and civil society and develop basic understanding of human value. They will be able to recognize rights, responsibilities, and privileges of participating in and contributing as a citizen in a diverse society.
- **5- Individual and team work:** Responsible and dutiful citizen. The programs of Hindi (Hons). At UG level offers a knowledge base on certain theoretical aspects like Post-colonial Literature, Feminist Literature, Gender, Marginalized Studies etc

#### PROGRAMME SPECIFIC OUTCOMES

- 1 . The students can build up a thorough knowledge base on Hindi Literature written and taught all over the Universe.
- 2 It will help students in analyzing the different forms of Hindi Literature, knowing the concept of Linguistics. Develop Reading, Writing & Communication skills.
- **3-** Students will be able to critically evaluate the social, economic and political variables for a proper understanding of the plurality of Indian society.
- **4** Students will learn to analyze Hindi Literature, arguments, information and theories and to apply methods appropriate for accumulating and interpreting data applicable to this discipline.

**PSO5** – Students will learn to develop knowledge of Linguistics studies with special reference to scientific studies of Hindi language and practices.

### **Semester I**

### BAHHINC101- Hindi Sahitya Ka Itihas :Ritikal Tak -I (CC-1)

- 1. Students will be able to gain knowledge of Social, Cultural, Political, Religious and especially literary contexts from the 10<sup>th</sup> Century till now.
- 2. Students will learn to compare the Ritikal to get acquainted with the developmental nature of Hindi Literature.
- 3. Students will come to know about the development of Apabharansh, Rajasthani, Maithili, Bhojpuri, Awadhi, Braj Bhasha and Khadi Boli etc.
- 4. Learn key concepts and various approaches to understand Hindi Sahitya Ka Itihas : Ritikal tak.

#### Semester II

# BAHHINC202-: Aadhunik Hindi Kavita :Chhayavad Tak (CC-4)

- 1. Students will understand the meanings, scopes, approaches and theories to the study of Comparative Literature.
- **2.** Students will gain in-depth about the various model related to the study of Introducing poets from Bharatendu era to Chhayavad era.
- **3.** Students will come to know and get acquainted with the poets and poetry collections till the Chhayavad era
- **4.** Students will become adept in evaluating the poets and poetry collections till the Chhayavad era.

### Semester III

# BAHHINC303-: Hindi Natak Aur Ekaanki (CC-7)

### **COURSE OUTCOMES:-**

- 1. Students will learn how to study and develop knowledge of literary forms in Hindi Natak & Ekanki.
- 2. Through Hindi drama and Ekanki students can learn about the various problems of society and politics in concept of Indian structure.
- 3. The students made an in-depth study of life by reading Hindi drama and Ekanki. And they are also trying to figure out a way to solve the prevailing stereotypes, social conditions in the society.

4. Students will be able to know about the middle-class issues in the modern era where most of families are dealing with the situation showed in the drama of 'Adhe Adhure'.

#### **Semester IV**

# BAHPLSC403-: Hindi Kahani (CC-10)

- 1. Students will be able to understand the vast life story of the characters and various issues which the characters are dealing with.
- 2. Students will come to know about the various provisions related to the different kind of Hindi stories through structure and process of the characters.
- 3. Students will develop knowledge of literary forms in Hindi Stories and will have increased vision regarding literary value
- 3. Students will learn to understand the basic and historical concept through Hindi Kahani.
- 4 The students can form certain awareness regarding culture and history in wider sense of the terms. They can learn how to understand literary texts under Hindi Kahani in relation to history and culture of the nation.

### Semester V

# BAHHINDSE502: Hindi Vyakaran (CC-11)

#### **COURSE OUTCOMES:-**

- 1. Students will develop knowledge of Hindi Linguistics & Grammar.
- 2. Students will come know about the Hindi Linguistics & Grammar. They will know the concept of Linguistics.
- 3. Students will understand the structure and functions of Grammar.
- 4. Students will be able to gain knowledge about basic principles and use of Grammar.

#### Semester VI

### **BAHHINC602 - Hindi Aalochana** (CC-14)

### **COURSE OUTCOMES:-**

- 1. Students will come to know about the Hindi Critics and their important works.
- 2. Through this paper students will learn about the importance of critics and important critics of Hindi Literature.
- 3. Students will be able to develop critical aspects through this paper which in future will help them to do better in the field of Hindi research studies.

# **DEPARTMENT OF HINDI (P.G)**

# **Programme Outcomes:**

- (i) Postgraduate degree is an academic degree. Graduates have advanced knowledge of the theoretical subject they have studied. They have a high level of skill in analysis, critical evaluation and professional application and the ability to solve complex problems and think factually and independently.
- (ii) Students can make their future bright by getting a master's degree. In the field of post-graduation, many skill-filled opportunities can be found, so that the students can reach a well-organized work field in their future and can illuminate the name of their country and their own.
- (iii) Students can have many benefits from a postgraduate degree, students can apply for government jobs. They can appear for Civil Services like IAS, UPSC exams.
- (iv)Students can find their future in Journalism.Students can work as news editors, news writers, reporters or anchors.Students can work for script writing.Students can venture into script dialogue and even songwriting. Students can work as a skilled translator(RAJYABHASHA ADHIKARI) as well as work as an interpreter.After obtaining a degree in master's degree, students can do content writing or editing work.Students can work as speech writers.
- (v)Students can become litterateurs can also become teachers or professors.

# **Programme Specific Outcomes:**

- (i) From the subject of Hindi literature, students will be able to gain knowledge of socio-cultural, political and especially literary contexts from the 10th century till now.
- (ii)Students will be able to get acquainted with the developmental nature of Hindi literature and will be able to get acquainted with the creators and compositions of Hindi literature.
- (iii)Students will be able to understand the development of Apabhramsha Bhasha Rajasthani ,Maithili, Bhojpuri ,Awadhi ,Braj Bhasha ,Khari Boli etc and also will be able to get acquainted with the scientific aspects of the Hindi language and will be familiar with the features of the official language Hindi and Prayojanmoolak Hindi.
- (iv)Students will be able to get acquainted with the classical tradition of Indian and Western poetry. They will be able to get acquainted with the information of various forms of prose and poetry of Hindi literature and also be able to get acquainted with the various forms of Hindi criticism.
- (v)Students will be able to get acquainted with important information of Dalit discourse and the presence of women in Hindi literature and important information about their literature.

### **Course Outcomes**

### **SEMESTER I:**

# MAHINDC105 HINDI KAAHANI

(i) Students will be able to get acquainted with the developmental journey of Hindi story. Through Salaam, the story of Omprakash Valmiki, students will be able to get acquainted with the injustice being done to the Dalits in the society.

- (ii) Through Sikka Badal Gaya students will get to know about the problems women face in the patriarchal society and they can work for the empowerment of women.
- (iii) This paper will sensitize students about the harrowing effects of the partition and its aftermath. It will make them aware of the suffering that millions went through.

### **SEMESTER II:**

#### MAHINDMIE201 JANMADHYAM

- (i) Students will be able to get information about all the important areas of mass media such as newspapers and electronic media.
- (ii) They will get acquainted with the social and cultural context of television and cinema.
- (iii) Students will be able to get acquainted with the utility and challenges in the present times of Internet and Facebook.
- (iv) Ad writing skills will be developed in the students and students will be able to get acquainted with different forms of advertisement.

#### SEMESTER III:

### **MAHINDC303 HINDI NATAK**

- (i) Students will be able to get acquainted with the evolution and development of drama in Hindi literature as well as the changing scenario of drama.
- (ii) Through Bharatendu Harishchandra's play Andher Nagri, students will be able to get acquainted with the British Rule.
- (iii) Through Jaishankar Prasad's play Dhruvaswamini, students will be able to get acquainted with the glorious history of India.
- (iv) While studying Dharamveer Bharti's Andha Yug students will develop a sense of morality and become more conscious towards their duties as an individual. They will also learn about the fruitlessness of war. They will learn to raise their voice against injustice in society even if it is against their own people.

# **SEMESTER IV:**

# MAHINDMJE401 DALIT SAHITYA

- (i) Through Dalit literature, students will be able to get acquainted with the caste and varna system prevailing in the society.
- (ii) Simultaneously, students will be able to get acquainted with the reform movement of Dalits and the relationship between Dalit movement and Dalit literature.
- (iii) Through Omprakash Valmiki's literature students will be able to get acquainted with the injustice of the upper castes prevailing in the society. Bhopal incident poem is a saga of workers' tragedy.
- (iv) Ultimately it can be said that through Dalit literature, students will be able to get acquainted with the exploitation and injustice being done on Dalits in the society.

# **Department of History (UG)**

# **Program Outcome**

- 1. Students will develop skills to evaluate the sources, methods, motivations, and interpretations behind historical narratives.
- 2. Students point out strengths and weaknesses of a historical argument.
- 3. Students understand the historical contexts of different historical interpretations.
- 4. Students compare, contrast, and explain differences between historical accounts.

# **Programme Specific Outcome**

- 1. Students formulate appropriate research questions.
- 2. Students critically analyze appropriate primary and secondary sources.
- 3. Students take into account the complexity and ambiguity of primary sources.
- 4. Students reflect on the limitations of their sources and on silences in the historical record.

#### Course Outcome

### Semester I

# **BAHHISC102**

# Early History of India (Proto History to 6th Century B.C.E)

The study of ancient Indian history is important because

- 1 Understanding the true nature of the past
- 2 To understand the nature of the obstacles that impedes India's progress as a nation.
- 3. Rich heritage of India's past.
- 4. Seeds of Social Discrimination

#### Semester II

### **BAHHISC202**

### **Political History of Early Medieval India**

1They provide a good deal of insight and knowledge about the condition of those times covering all the aspects of the society, polity, economy and cultural.

2. The decline of the Gupta Empire paved way for the emergence of the regional powers in North India as well as in South India.

- 3. Indian feudalism from top to bottom.
- 4. Urbanization and its significance in modern days

#### Semester III

### **BAHHISSE301**

### Archeology and Museum Making in Colonial India

- 1 After studying Archeology and Museum students can gain the skills to work in heritage sector
- 2 students can get employment in museums
- 3Students can also pursue research, information and analytical careers
- 4. Students can get employment in site museums

#### **Semester IV**

### **BAHHISC402**

# The French Revolution and Napolean Bonaparte

- 1. As because it was one of the most defining moments in human history.
- 2 The results of the French revolution changed Europe for ever. And since it is such a big deal it's natural that historians are still studying and they will continue to do it in the foreseeable future.
- 3. Concept of equality, library and fraternity as envisaged by French Revolution.
- 4. Concept of Nationalism as triggered by the French Revolution

### Semester V

### **BAHHISDSE502**

# Transformation of Japan: c.1850-1945 CE

1The Meiji period that followed the Restoration was an era of major political, economic, and social change in Japan.

2The reforms enacted during the Meiji emperor's rule brought about the modernization and Westernization of the country and paved the way for Japan to become a major international power.

- 3. Concept of Modernisation and Economic liberalism
- 4. Economic emancipation of Japan and drastic economic progress.

# **Semester VI**

# **BAHHISDSE604**

# **International Relations 1945-1991CE**

Career Paths in International Relations After Graduation

- 1. Multilateral and intergovernmental organizations.
- 2. Non-government organizations (NGOs) Banking and accounting services.
- 3. Local and national governments as government relations consultant.
- 4. Students can prepare themselves for IS, IPS and WBCS exam.

#### DEPARTMENT OF JOURNALISM AND MASS COMMUNICATION

# **Program Outcomes -**

- 1. The B.A. (Hons) in Journalism and Mass Communication course provides students with an opportunity to critically explore the ways in which world of communications operate in international and national contexts.
- 2. It imparts skills related to Information Communication Technologies (ICTs), including digital and media literacy and competencies.
- 3. It helps in applying the objectivity and critical thinking for communicating to masses through a variety of mediums such as Short Films, Documentary Films, PTC for Television, Advertising and PR Campaign, Event Management, News Paper Production for Print.
- 4. The syllabus and curriculum provide students with the means to investigate and learn a range of working involving activities from creative production and creation to promotion, marketing and networking.

# **Program Specific Outcomes –**

- 1. The students will be able to write specialized stories for various media. They will learn to use Public Relation tools like Press release, news etc.
- 2. Students will understand the importance of media survey and media seminars and will acquaint the knowledge of Research report writing.
- 3. Students will be able to write a variety of mass media products, including news stories, press releases, and advertising copy.
- 4. Students will be able to create and design emerging media products, including blogs, digital audio and video, social media content, digital photography, and multimedia.

#### **Course Outcomes:**

#### **SEMESTER I**

#### INTRODUCTION TO COMMUNICATION & JOURNALISM -

1. To introduce basic concepts of communication and its role in society

- 2. To introduce students to various processes and theories of communication
- 3. To introduce the students to basics of journalism and its role in society
- 4. To introduce different types of media their characteristics, merits and demerits

#### **SEMESTER II**

#### REPORTING AND EDITING FOR PRINT MEDIA –

- 1. Students will be able to identify news values and comprehend the news process.
- 2. To organize a news story according to the hard news structure.
- 3. To write different leads, the body text and ending.
- 4. To demonstrate interviewing and newsgathering skills.

# **SEMESTER III**

# ADVERTISING AND PUBLIC RELATIONS -

- 1. Examining newspaper as a business enterprise and its public service role with reference to the Indian experiences. Various factors associated with ownership of newspapers, the different types of ownership and source of revenue of a newspaper.
- 2. Understanding circulation of newspapers and the various factors involved with circulation of newspapers, newspaper's policy, role of the Circulation department, circulation manager, Audit Bureau of Circulation (ABC), advertisement department of a newspaper, role of the advertisement manager, different types of advertisement in newspapers and newspaper as a medium of advertisement.
- 3. Defining Advertising and its different types. Different advertisement mediums, their selection criterion and relative advantages, ethics of advertising, market research, brand positioning, creative strategy, market and its segmentation and sales promotion
- 4. Understanding the structure and functioning of an advertising agency and also client agency relationship.

#### **SEMESTER IV**

#### **DEVELOPMENT COMMUNICATION –**

1. To enable students to understand the various factors of economic development

- 2. To enable to learn the problems of human development and required measures to overcome them.
- 3. To introduce students to development issues in India and coverage of media on these issues.
- 4. To explain the role of folk media in development communication

#### **SEMESTER V**

#### INTRODUCTION TO FILM STUDIES -

- 1. Understanding early development and evolution of cinema in USA and India
- 2. Explore the celebrated works of renowned national and international film makers
- 3. Inculcate film making techniques using practical tools
- 4. Undertaking stages of film making and visual languages

#### **SEMESTER VI**

#### MEDIA INDUSTRY AND MANAGEMENT –

- 1. To understand the roles and functions of a public service broadcaster.
- 2. To understand different ownership patterns in media.
- 3. To understand the concept of public service broadcasting global case studies.
- 4. To learn revenue models, sponsorships and public service announcements.

#### **DEPARTMENT OF MATHEMATICS (UG)**

# **Program Outcomes (PO):**

- 1. Completing study in B.Sc., students can join the job as Banker/. Actuarial Science/Defense Services/civil services (IAS, IPS, etc.).
- 2. After higher studies, he/she can be a Professor/ Information Scientist/ Subject Matter Expert/ Data Analyst/Statistician.
- 3. After pursuing M.Sc. and B.Ed. (Bachelors of Education), he/she can be a Teacher/Counsellor/Educational Administrator/Educational Researcher.
- 4. The students can learn some programing language in the B.Sc. programme, if they are interested, they can shift their study towards different professional courses like M. Tech, MCA etc. then he/she can be an app Developer/ IT Assistant/Software Engineer/Business Analyst/Software Developer/ System Analyst/Technical Writer/Software Consultant/Web Designer and Developer.

# **Program Specific Outcomes (PSO):**

- After studying B.Sc. in Mathematics, students can gain knowledge about the physical laws that governs the universe, mathematical understanding help them to know their ways of functioning. Also, he/she can achieve the technological knowledge on how to find/check the conditions of stability, of infrastructure (like buildings and bridges), which forces affect them and how to manage the stable structures of infrastructure on managing other factors which affect them.
- 2. After studying B.Sc. in Mathematics, he/she can gain knowledge about how artificial satellites works, functioning of rockets and how to find and manage their trajectories. He/she can gain knowledge about how to model any situation by differential equation to predict/explain the world around us by obtaining their solutions.

- 3. Also Mathematics students cangain knowledge about how to model any critical linear transportation/production/cost, profit optimization of a company problems solve/predict/explain the problem by obtaining their solutions and achieve the goals.
- 4. After the courses they are able to form some simple mathematical model on some physical phenomenon, biological models etc.

#### **Course Outcomes (CO):**

#### 1. SEMESTER-I

**BSCHMTMC101** (Calculus, Geometry and Differential Equation): After studying this paper student can gained knowledge about how to model any situation by differential equation to predict/explain the world around us by obtaining their solutions. Also they apply the concept and principles of differential calculus to solve different geometric and physical problems that may arise in business, economics and life sciences.

#### 2. SEMESTER-II

BSCHMTMC202 (paper name –Differential Equation and Vector Calculus): Students can learn about differential equation with vector form to solve application problems such as spring/ mass system motion problems, acceleration or three component series circuit. Also they can use the concept of linear or nonlinear differential equations to solve industrial problems such as exponential growth and decay, population logistics growth, velocity, solution mixtures, two component series circuits and chemical reactions.

# 3. SEMESTER-III

**BSCHMTMSE302** (paper name— Programming Language in C): Student can obtain knowledge about the high-level language and overall concept above the programming and they can use it to develop different applications and website also.

# 4. SEMESTER-IV

**BSCHMTMC402** (paper name –Real Analysis): On successfully completing this paper students will be able to demonstrate the capability to use a range of established techniques and a reasonable level of skill in calculation and manipulation of the material to solve problems in the

following areas: uniform continuity of functions, sequences of functions, uniform convergences, series, power series, Riemann integration, functions of several variables, differentiation of functions of several variables; They can use these idea in finance, trading, computer and network simulations, modelling, manufacturing, quality control, etc.

# 5. SEMESTER-V

**BSCHMTMDSE501** (paper name –Linear Programming and Game theory): Students have learned how to model any critical linear transportation problem, production, cost, profit optimization of a company and solve, predict or explain the problem by obtaining their solutions. They have learnt to choose better investment choices in a business to get maximum profit and minimum loss.

#### 6. SEMESTER-VI

**BSCHMTMC602** (paper name – Mechanics): This paper helps the students to acquire the knowledge about how the artificial satellites work, functioning of rockets and how to manage their trajectories. They also obtain the information about physical laws that governs the universe.

#### **DEPARTMENT OF NUTRITION (UG)**

# **Program Outcomes:**

The Department of Nutrition offers Bachelor of Science (B.Sc.) Honours in Nutrition. Programme Specific Objectives:

- **1.Scientific and Critical Thinking** Development of knowledge, skills and holistic understanding of the discipline among students. Encouragement of scientific mode of thinking and scientific method of enquiry in students. This goal is achieved through the on job trainings conducted by the Department in Hospitals and Community and the writing of a report on it.
- **2.Triggers the quest of knowledge** Inculcates the desire to gather knowledge and helps them to utilize this knowledge in a broader aspect.
- **3.Instigates development of intra-disciplinary skills** Studying wide range of subjects like Dietetics, Community Nutrition, Family Meal Management, Quantity Food Production & Service, Food Safety and Quality Control, Geriatric Nutrition help students in developing skills related to various field.
- **4.Health management and community upliftment** The course equips students with ability to manage a healthy society and country. This goes a long way in progress of entire nation and thus world. Students can work at both national and international level after completion of higher studies in this course.
- **5. Self-dependency**-The course gives an opportunity to promote application skills and understanding to willing students to establish an enterprise of their own and become independent stakeholders in future.
- **6. Encouraging research aptitude**: The Academic Programme under the CBCS takes care to make the students familiar with the existing trends in Research Methodology which instills some primary concepts of academic research among the undergraduate students.

# **Program Specific Outcomes:**

In essence, it is the enabling of knowledge, skills and behaviour to plan, manage, select, prepare and eat a healthy diet. Food literacy is therefore important for the early establishment of healthy dietary behaviour that can be sustained in later life.

**1.** Imbibing knowledge, skills and holistic understanding of the subject to be able to enter teaching profession at school/ college/ university level after higher studies in related field.

2 Developing diet planning skills for healthy and diseased individuals in society for better

health management and prevention of diseases. Sensitization and awareness about the hazards

of poor hygiene and sanitation and its management.

3 Developing a clear understanding of human body and can developing research skills in

nutrition field through Dissertation/Project.

4. Inculcating an entrepreneur mindset to be able to have one's own established business in

future. Students develop ability to provide nutrition counseling and education to individuals,

groups, and communities throughout the lifespan using a variety of communication strategies.

5. Students may apply their technical skills, knowledge of health behavior, clinical judgment,

and decision-making skills when assessing and evaluating the nutritional status of individuals

and communities and their response to nutrition intervention.

**6** Students can implement strategies for food access, procurement, preparation, and safety for

individuals, families, and communities. Apply food science knowledge to describe functions

of ingredients in food.

**Course Outcomes:** 

Semester I

Community Nutrition Epidemiology: Extensive study of role of nutrition in community

health and national development, nutritional problems faced by our country, methods of

assessment of nutritional status at community level, various methods of nutrition education in

community, role of various national and international agencies in community nutrition and

recent advances in community nutrition research.

**Semester II** 

Nutritional Biochemistry: Brings out relation of the subject with other biological sciences.

It also gives an insight into molecular aspect of transport, biological oxidation & genetic control

of metabolism.

Semester III

**Child Development skills**: Study of growth and development through various life stages and factors affecting growth and development. Thus the study of this helps the students to understand the different milestones of growth and the necessities to achieve it and make their family members and associates aware regarding it.

# **Semester IV**

**Food Preservation and processing:** Helps in understanding various techniques of preserving food products and detailed study of preserved food products. This knowledge can help them in the domestic sphere and the application skills can be utilized for industrial purpose.

# Semester V

**Nutrition Programming and Emergency Nutrition Management:** It will provide the students with the knowledge and skills to improve their practice and help them prepare for the complexity and the reality of working in an emergency context. It is particularly suitable for people who wish to consolidate their knowledge and experience and who are keen to learn from and with others.

#### Semester VI

**Health Statistics:** Helps the students in Organizing and summarizing the data of any field based /practical application and further helps them to analyzing the data and draw conclusions from it.

#### **DEPARTMENT OF PHILOSOPHY**

#### **PROGRAM OUTCOME:**

- 1. Critical thinking: The students will be able to develop philosophical ideas and methodologies which will help them to identify and solve different problems in their practical life.
- **2.** *Effective Communication:* The undergraduate students will be able to express their views and establish the same with logical arguments and also respect the views of others with a critical approach.
- **3.** *Ethics:* By understanding the major ethical theories and problems from the western as well as Indian traditions students will be efficient enough to lead difficult situations.
- 4: Effective Citizenship: The students will be able to know they have some duties for individuals and society also. Therefore they will be able to lead a better life and a better society also.

#### PROGRAM SPECIFIC OUTCOME:

- 1. Develop an awareness of different mental states and processes that ultimately generates self-estimation and the capacity of checking undeserved and crude emotional overflow.
- 2. Analyze the fundamental questions necessary to understand life as it is lived, with other humans, in a public realm.
- 3. Develop the capability of applying knowledge and skills within philosophy to areas that require an ability to analyze complex problems, as well as to develop possible solutions from a philosophical perspective.
- 4. Relate traditional philosophical notions to actual life and experience, reducing the abstractness of the notions.

# **COURSE OUTCOME:**

**SEMESTER: I** 

PAPER NAME: Outlines of Indian philosophy-1

PAPER CODE: BAHPHIC101

- 1: Basic concept of Indian Philosophy is introduced
- **2:** Different schools of Indian Philosophy are introduced along with each of their theoretical framework and basic tenets.
- **3:** The outcome of the course is to understand the distinct features of basic concepts of Indian philosophy including Nastika and Astika schools.

**4:** The outcome of the course is to understand the distinct features. The Indian philosophy including in-depth understandings of Shankara and Ramanuja Philosophy, And yoga – its practices.

**SEMESTER-II** 

PAPER NAME: History of western philosophical thoughts-1

PAPER CODE: BAHPHIC201

- **1:** A detailed discussion on the similarity and dissimilarity between Indian and Western Philosophy is given.
- **2:** The primary arguments and key concepts of different Western Philosophers of both ancient and modern ages are introduced.
- **3:** The outcome is to increase the horizon of western philosophical thoughts including pre Socratic, medieval and modern philosophical thought.
- **4:** The outcome of the course is to understand the distinct features The of Indian philosophy including in-depth understandings of Shankara and Ramanuja Philosophy, And yoga its practices

**SEMESTER: III** 

Paper name: Indian ethics Paper code: BAHPHIC301

- 1. A broad discussion is given on disparate conceptualizations of ethics by different schools of Indian Philosophy.
- 2. A brief discussion on the necessity and application of the study of ethics in our day-to-day life is provided.
- 3. In the light of the Bhagavad Gita, are being introduced the Niskam karma, **Dharma**, **Purusartha etc**. which are guided by our actions in our daily life .
- 4. The outcome of the course is to understand the Basic concept of BHAGAVAD GITA i.e. Karma, Dharma, Purusartha, etc.

**SEMESTER: IV** 

PAPER NAME: Psychology PAPER CODE: BAHPHIC402

- 1. The nature and scope of Psychology and its different schools are introduced.
- 2. The outcome of the course is to understand the psychological aspects of human being i.e. mind, consciousness, ego, dream, mind body relation etc.

3. A brief discussion about the theory of learning i.e. classical conditioning theory, operant conditioning theory etc.

**SEMESTER: V** 

PAPER NAME: Western logic-II PAPER CODE: BAHPHIC502

- 1. Without logic man cannot believe on anything or converse with anyone on any subject. Therefore the necessity of logic in our daily life is explained.
- 2. It gives emphasis how to maintain validity in argumentations; it also teaches us how one, from insufficient available information, can proceed towards justified generalization.
- 3. The outcome of the course is to understand the valid arguments, propositional and predicative logic. The outcome of the course is to understand the valid arguments, propositional and predicative logic.
- 4. The outcome of the course is to understand Quantificational logic and Inductive theories.

**SEMESTER-VI** 

PAPER NAME: Philosophy in the twentieth century: Indian

PAPER CODE: BAHPHIC601

- 1. The outcome of the course is to make students aware about the modern Indian thinkers i.e. GANDHI, VIVEKANANDA, ARABINDA, AMBEDKAR etc.
- 2. We have discoursed on Rabindranath Tagore's concept of the finite-infinite aspect of man, nature of religion and problem of evil; Swami Vivekananda's concept of Practical Vedānta, Universal Religion, and Yoga; and Sri Aurobindo's concept of reality, human evolution and Integral Yoga.
- 3. A brief discussion about the philosophical knowledge on contemporary issues.

#### DEPARTMENT OF PHYSICAL EDUCATION

#### **PROGRAMME OUTCOME:**

- 1. To appreciate the basic knowledge of different fields of study in PhysicalEducation.
- 2. To be empowered to establish and develop a viable and forceful line between concepts, theories and practice in the field of PhysicalEducation.
- 3. To develop the ability to choose their learning trajectories and program, and thereby decide their own paths in life according to their talents and interests.
- 4. To ensure the unity and integrity of all knowledge across the natural sciences, social sciences and sports.
- 5. To develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific rage and creative imagination, with sound moral values.

#### PROGRAMME SPECIFIC OUTCOME:

- 1. To help the student teachers to be acquainted with the importance of Physical Education Program in respect of all-round development of the students and for developing Personality traits
- 2. To help the student teachers to acquire knowledge of preparing fixture and track marking with provision of staggers.
- 3. To enable the student teachers in planning Physical Education activities to deal with the problems and solutions
- 4. Domain knowledge: Apply the knowledge of basic sciences that may be relevant and appropriate to physical education and sports sciences leading to solution of complex sports related issues and problems.
- 5. Problem analysis: Ability to Identify, define the actual requirements, formulate and analyze complex physical education and sports sciences related problems to reaching substantiated conclusions.

#### **COURSE OUTCOME:**

#### Semester-I

# PAPER;-FOUNDATION OF HISTORY OF PHYSICAL EDUCATION (BAPPEDC101)

The Learning Outcomes of this course are:-

- 1. To acquaint students with knowledge of historical development of Physical Education & Sports.
- 2. Students will be able to understand new perspectives in physical Educations.
- 3. Analyze the concepts and issues pertaining to Physical Education.
- 4. Formulate the principles, philosophy and concepts about Physical Education

#### Semester-II

# PAPER:-ANATOMY, PHYSIOLOGY AND EXERCISE PHYSIOLOGY(BAPPEDC201)

The Learning Outcomes of this subject are:-

- 1. To provide students with the basic knowledge of anatomical structures
- & functions of human body.
- 2. Appraise the effects of health condition during the training and practical sessions
- 3. Analyze the practical knowledge during the practical situation
- 4.. Remember and recall the definition of anatomy and physiology and co-relatethe principles of physiology

#### Semester-III

# PAPER:-HEALTH EDUCATOIN AND WELLNESS(BAPPEDC301)

The Learning Outcomes of this subject are:-

- 1. To make clear the students with knowledge of Health, Nutrition, First Aid and Personal & Environmental Hygiene.
- 2. Students will be educated with the knowledge and importance of wellness lifestyle with the help of Physical exercises and Sportingactivities.

3. To understand the concept of optimal health in developing a personal view of health

4. The history of national disease prevention and health promotion activities.

# PRACTICAL PAPER:-TRACK AND FIELD(BAPPEDSE301)

The Learning Outcomes of this sport are:-

•To acquaint students with theoretical, technical and practical knowledge

& skills in Track and Field events and in Resistance Training, and gainproficiency.

#### **Semester-IV**

#### PAPER:-MANAGEMENT OF OFFICIAL AND SPORTS (BAPPEDC401)

The Learning Outcomes of this subject are:-

1. To acquaint students with knowledge of management and planning of Sports Competitions &

Tournaments. The student learns to plan, organize& execute sports events.

2. To acquaint students with knowledge of sports nutrition for better

performance. The students learn nutritional importance and plan forvarious sports.

3. By studying this course, the students would be able to know the functions of human resource

management.

4. By studying this course, the students would be able to understand the needs and functions of

financial management.

# PRACTICAL PAPER:-YOGASANA AND GYMNISTICS(BAPPEDSE401)

The Learning Outcomes of these sports are:-

•To acquaint students with theoretical, technical and practical knowledge &

skills of particular games and sports of their choice and gain ability.

#### **Semester-V**

#### PAPER:-SPORTS TRAINING(BAPPEDDSE501)

The Learning Outcomes of this subject are:-

- 1. To acquaint students with knowledge of training principles and their application in enhancing sports performance.
- 2. Appraise types of periodization for performance development.
- 3. Create various training facilities and plans for novice to advance performers.
- 4.Explain different means and methods of various training

# PRACTICAL PAPER:- RACKET GAME(BAPPEDSE501)

The Learning Outcomes of these sports are:-

•To acquaint students with the theoretical, technical and practical knowledge & skills of Racket Sports of their choice and gain proficiency.

#### **Semester-VI**

# PAPER:-SPORTS PSYCHOLOGY(BAPPEDDSE601)

The Learning Outcomes of this subject are:-

- 1. To develop an understanding of the nature and extent of psychology of education, physical education & sports.
- 2. To understand the nature, steps and factors facilitating and obstructinglearning.
- 3.To develop an understanding of the intellect, creativity & the role of the teacher in encouragement them.
- 4. The students made to understand the systematic use of tests to quantify psychophysical behavior, abilities, and problems and to make predictions about psychological performance.

### DEPARTMENT OF POLITICAL SCIENCE(UG)

#### PROGRAMME OUTCOME:-

- **1-Politics and Society:** Students will be able to know about State, Society and Culture as well as understand the inter relationship between policy decisions and its effects on society.
- **2-Critical thinking:** the ability to analyse and predict socio political phenomena based on the study of existing socio economic determinants and past experiences. This goal is achieved by training students in the different methods and tools of investigation such as empirical research methods, survey research and data analysis of subject responses.
- 3 Effective citizenship: the course curriculum inculcates among students a basic understanding of the rights and duties of citizenship and thereby to act as responsible citizens through the observation of important days such as Independence Day, Republic Day and also spreading awareness in society through street plays based on specific socio political issues such as domestic violence, disillusioned youth of the materialistic world etc.
- 4 **Communication:** Establishment of linkages between academics and civil society at large so as to successfully address socio political problems. Recognize rights, responsibilities, and privileges of participating in, and contributing as a citizen in a diverse society.
- **5- Individual and team work:** Function effectively as an individual and as a member/leader in different social settings. Students will be Politically Socialized.
- **6- Disciplinary knowledge: -** Students will be able understand the one or more discipline and capable of demonstrating that knowledge in personal development in future.

#### PROGRAMME SPECIFIC OUTCOMES:

- 1 Understand the nature and developments in national and international politics
- 2 Analyzing the Indian constitutional provisions, major legislations and reforms.
- **3-** Critically evaluate the social, economic and political variables for a proper understanding of the plurality of Indian society.

- **3** Analyzing political problems, arguments, information and theories and to apply methods appropriate for accumulating and interpreting data applicable to this discipline.
- **4 -** Encouraging a comprehensive, comparative understanding of specific world constitutions such as UK, USA, and China.
- **5 -** Developing knowledge of administrative studies with special reference to Indian administrative structures and practices.
- **6** Make clear understanding about society and social justice and also contemporary issues like Gender Discrimination, Human Rights and Environmentalism.
- **7 -** Knowledge of key theories and concepts, historical developments, organizations, and modern issues in international relations.

#### **COURSE OUTCOMES:**

#### Semester I

# **BAHPLSC101- POLITICAL THEORY-I (CC-1)**

- 1. Students will able to explain different approaches to politics and build their own understanding of politics and Political Ideologies.
- 2. Understand the various Political ideas or concepts like Liberty, Equality, Justice, and Law.
- 3. Students will come to know about the theories of State.
- 4. Explaining the Concept of State Sovereignty: Monistic and Pluralistic Theories.

  Analyzing the changing concept of Sovereignty in the context of Globalization.

#### **Semester II**

# **BAHPLSC201-:Comparative Politics(CC-03)**

 Understand the meaning, scope and approaches and theories also to the study of Comparative Politics.

- **2.** Students will gain in-depth about the various model related to the study of Political system.
- **3.** Students will come to know the various kinds of political system models and how these are functioning in the world.
- **4.** Evaluating the theories of development and make distinction between liberal and Marxist conception regarding development.

#### Semester III

# **BAHPLSC302-: Indian Political Thought (CC-06)**

- 1. Study of the Indian Political Thinkers and their thoughts.
- 2. Study of the contribution of political thinkers in independent movements and their need for modern society.
- 3. Students will become aware of the major trends within ancient Indian political thought.
- 4. Students will gain knowledge about the development of political philosophy in India, the Indian intellectual response to political concepts, ideas, and debates.

#### **Semester IV**

# **BAHPLSC402-: Indian Government and Politics (CC-09)**

- 1. Students will be able to understand the philosophy and vision of the Indian Constitution and how it had been framed.
- 2. Students will come to know the various articles and provisions related to the different kind of political structure and process of the country.
- 3. Examining the Fundamental Rights and Duties of Indian citizens with a study of the significance and status of Directive Principles.
- 3. Assessing the nature of Indian Federalism with focus on Union-State Relations.
- 4. Critically analyzing the important institutions of the Indian Union: the Executive: President; Prime Minister, Council of Ministers; Governor, Chief Minister and Council of Ministers; The

legislature: Rajysabha, Loksabha, Speaker, Committee System, State Legislature, The Judiciary: Supreme Court and the High Court's: composition and functions- Judicial Activism.

#### Semester V

# **BAHPLSC501-: World Politics: Organizations and Issues (CC-11)**

- 1. Understand the dynamics of world politics.
- 2. Students will come know the role of UNO in world politics.
- **3.** Analyze the function and impact of regional organizations like SAARC, ASEAN.
- **4.** Understand the changing nature of world politics and contemporary issues like human rights, climate change.

#### Semester V

# **BAHPLSC502-: Basic Theories of Public Administration (CC-12)**

- 1. Students will come to know the evolution of Public Administration as an academic discipline.
- **2.** Compare the public administration with private administration.
- 3. Students will be able to gain knowledge about basic principles of organization.
- **4.** Students will understand the structure and functions of bureaucracy.

#### Semester VI

# BAHPLSDSE602-UNDERSTANDING SOUTH ASIA (CC-12)

- 1. Students will come to know about the South Asia region and its strategic importance in the global politics.
- 2. Understand the geo political issues in the South Asian region.
- 3. Students will be able to know about the state formation of South Asian countries and some major issues.
- 4. Students will come to know about the border conflict between South Asian Countries

#### **DEPARTMENT OF PSYCHOLOGY (UG)**

# **Program Outcomes (PO):**

- 1: Critical thinking- A graduate student will develop critical thinking, it enable students to think clearly and rationally. They can understand the logical connection between ideas.
- **2:** Acquire knowledge & life skills- A student with graduate in psychology equips with knowledge in general psychology. After graduation will acquire life skills and become a better human being, will develop language competence and be proficient in oral communication and written skill.
- **3:** Develop confidence and career- Students will develop confidence to appear for various competitive exams related to public and private sectors. Thereby they can pursue career in multi and interdisciplinary fields.
- **4:** Research aptitude will develop- Students can understand the use of analytical methods required for interpreting and analyzing results and drawing conclusions as supported by their data.
- **5:** Effective citizenship- Students can make ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **6:** Employability- Students will have better employability in the field of finance, industry, administration, social and extension work, IT sectors, research and many others.

# **Program Specific Outcomes (PSO):**

- 1: Offering learning opportunities to orient the students towards scientific and humanistic study of the complexities of human mind and behavior.
- **2:** Students of Psychology can grow sensitivity, sympathy and empathy towards others, learn to work in a team and develop leadership qualities, accept and respect individual.
- **3**: Help shaping cognitive, affective and behavioral abilities of students for building responsible psychology professionals and researchers. They get an understanding about the practical applications, implications and generalizations about the different aspects of the subject from books to real life situations.
- **4:** It gives a platform to students to expand themselves beyond books, integrate classroom teaching learning with real life applications, self-directed learning, and enhancing one's

capacity of critical thinking, problem solving, reasoning and drawing different perspectives on various areas in Psychology.

**5:** Psychology is both a human science and an art with a rich field of critical knowledge that endeavors to approximate the processes of lived life and social reality. While psychology happens to be a social or behavioral science with noticeable advances in neuroscience, cognitive science, consciousness studies and studies of indigenous concepts, theories and practices, it is also a humanist and relational pursuit with strong implications for our social and cultural life.

**6:** In fact psychology is now being introduced as an allied course in many disciplines and its teaching is considered highly relevant to address mental health concerns(e.g. depression, anxiety, stress, learning difficulties, suicide), social issues (e.g. prejudice and discrimination, violence, child abuse, media effects, problems of youth and elderly people), life style related health problems (e.g. CHD, hypertension, cancer, drug abuse and other kinds of addictions) and facilitating psychological health, personal growth and well-being.

#### **Course Outcomes (CO):**

#### **SEMESTER I:**

**BSCHPSYC102** (Introduction to Bio-psychology) - Understanding what psychology is all about. Appreciation of the scope and the field of psychology. Appreciating the biological bases of human behavior including neural, biochemical, evolutionary, and genetic mechanisms. Having basic knowledge about the structures of human brain, their functions and impact on human behavior.

#### **SEMESTER II:**

**BSCHPSYC202** (Quantitative analysis) - Developing skills to use quantitative techniques such as measures of central tendency, variability, and correlation. Students can understand the nature of measurement and its various levels.

#### **SEMESTER III:**

**BSCHPSYC301** (Cognitive psychology) - Acquiring basic knowledge of core concepts in human cognition (e.g. attention, memory, reasoning and decision making). Students can develop familiarity with basic concepts related to some foundational themes of study in psychology such as learning, memory, perception, thinking, emotion, motivation and human biological system including brain.

#### **SEMESTER IV:**

**BSCHPSYC401** (**Psychological Assessment**) - Developing knowledge about the steps in test construction and test standardization. Students can demonstrate the understanding of the impact of cultural contexts on assessment.

## **SEMESTER V:**

**BSCHPSYC501** (Fundamentals of clinical psychology) - Developing a foundational knowledge of Clinical Psychology, its historical development (especially w.r.t India) and professional ethics.

# **SEMESTER VI:**

**BSCHPSYC602** (Foundations of organizational psychology) - Understanding group dynamics, working through conflicts and working in teams. Students can understand leadership processes from different theoretical perspectives. Understanding group dynamics, working through conflicts and working in teams.

#### **DEPARTMENT OF SANSKRIT**

# **Program Outcomes:**

- 1. Students graduating with Sanskrit Honors Programme from this college are expected develop an analytical skill which will enable them to solve the problem related issues that they face in next level of studies.
- 2 Students, although at the initial stage after getting admission face difficulty in their language skill, but when they pass the programme, they are expected to become able to develop their understanding in the subject.
- 3. Students completing the programme become confident in the sense that they feel they are employable.
- 4. Students of this programme will become capable to ask questions, critically appreciate a scholarly presentation of any form and debate upon the issues which invite cross discussions.
- 5. Students will be able to master a language that is now not commonly in use and therefore create demand for their knowledge.

#### **Program Specific Outcomes:**

- 1. Students are expected to develop the Sanskrit language skill to communicate both in writing and verbally.
- 2. It is expected that at the end the students of the programme will get a fair knowledge of the development of Sanskrit language and literature vis-a vis its culture-how it emerged.
- 3. After graduating they are expected to grow the sense of art and literature that will enable them to understand the human social and cultural relationships better.
- 4. Students will also be able to appreciate the art and literature, especially in terms of great Indian heritage which is embedded in Sanskrit literature.
- 5. Students are also expected to learn analytical skills while learning the appreciation ability.

#### **Course Outcome**

#### **BAHSNSC101**

Classical Literature (Poetry): After the completion of course, the learners will be able:

- 1. To acquire the language skills.
- 2. To enrich their mental state and develop their personality.
- 3. To enrich themselves with the wisdom of Sanskrit poetry.
- 4. Students will gain aesthetic knowledge which they can in turn impart in their life.

#### **BAHSNSC201**

#### **Classical literature (Drama):**

- 1. To enrich themselves with the wisdom of Sanskrit Drama.
- 2. To have a general sense of the various dimensions of Sanskrit Literature

Like Abhijñānaśakuntalam.

- 3. To have at least a general sense of the various dimensions of Sanskrit Drama.
- 4.To take part in social transformation.

#### BAHSNSC301

# **Critical Survey of Sanskrit Literature:**

- To acquire knowledge on the History of Sanskrit Literature (Drama): Bhāsa, Kālidasa, Śūdraka, Viśākhadatta, Śrīharṣa, Bhavabhūti, Bhaṭṭanārāyaṇa.
- To have at least a general & basic sense of the various dimensions of Sanskrit literature in connection with VaidikaSāhityam, Rāmāyaṇam, Mahābhāratam, Purāṇam.
- To have knowledge on the History of Sanskrit Literature (Mahākāvyam) with spl. Reference to Aśvaghoṣa, Kālidasa, Bhāravi, Māgha, Bhaṭi, Śrīharṣa.
- To know more about the History of Sanskrit Literature (Fables) like Pañcatantra, Hitopadeśa, Vetalapañcaviṃśati, Siṃhāsanadvātriṃśikhā, Puruṣaparīkṣā, Pañcatantra, Hitopadeśa.

#### **BAHSNSC403**

# **Vedic Literature:**

- 1. To acquaint themselves with Vedic Hymns.
- 2. To have at least a general sense of the various dimensions of Sanskrit Literature, like Vedic Literature (Rgvedasamhitā).
- 3. To enrich their knowledge with Vedic Grammar like Sandhi, declension of a-stems.
- 4. Students are going to acquire knowledge of the social situation during those times.

#### BAHSNSC501

# **Poetics & Literary Criticism:**

- 1. To equip themselves with the knowledge of Alankāra like Śleṣa, Upamā, Rūpakam, Utprekṣā, Pariṇāma etc.
- 2. To acquire the knowledge on Poetics and Literary Criticism in Sanskrit.
- 3. The students will become aware of the major critics in their subject.
- 4 Students will have the ability to analyze poetry beyond the basics and on an advanced level.

#### **BAHSNSC601**

# **Indian Social Institution & Polity:**

- 1. To know about the directive as established by Kautilya for good governance.
- 2. To get themselves acquainted with Mantrādhikār and Śāsanādhikār.
- 3. To acquire knowledge on Indian Social Institutions and Polity.
- 4. To have at least a general sense of the various dimensions of Sanskrit Literature like Arthaśāstram by Kouilya.

# **DEPARTMENT OF STATISTICS (UG)**

# **Program Outcomes:**

- This program offers a range of traditional avenues in academics, Govt. Service, IAS, Indian Statistical/ Economic Services, Industries, Investment Banking, Banks and Insurance Sectors, CSO and NSSO, Research Personnel/Investigator in Govt. organizations such as NCAER, IAMR, ICMR, Statistical and Economic Bureau & various PSUs Biostatistics, Demography etc.
- It also provides an array of non-traditional employment avenues ranging from Stock Brokers Analyst, Sports Analyst, Poll Analyst, Business Analyst, Financial Analyst, Content Analyst etc.
- 3. After pursuing higher study, he/she can be a Teacher/Professor/Counsellor/Educational Administrator/Educational Researcher.

# **Program Specific Outcomes:**

- 1. Students will be able to understand basic theoretical and applied principles of statistics needed to enter the job force.
- 2 Students will be able to communicate key statistical concepts to non-statisticians.
- 3. Students will gain proficiency in using statistical software for data analysis.
- 4. Perform statistical inference in several circumstances and interpret the results in an applied context.

#### **Course Outcomes:**

#### Semester I

# **BSCHSTSC101 Paper Name: Descriptive Statistics:**

After the completion of course, the students will have

- Knowledge of Statistics and its scope and importance in various areas such as Medical, Engineering, Agricultural and Social Sciences etc.
- 2. Information about various Statistical organizations in India and their functions for societal developments, insights into preliminary exploration of different types of data.
- 3. An introduction to Programming in R and standard statistical software packages, namely, MINITAB, MATLAB, R, MATHEMATICA, SAS, S-SPLUS, STATISTIKA, etc. which they will be able to use in the subsequent practical courses and projects.

#### **Semester II-**

# **BSCHSTSC201 Paper Name: Statistical Methods I**

After completion of the course the students will acquire

- 1. concept of a random sample from a distribution, sampling distribution of a statistic, standard error of important estimates such as mean and proportions,
- 2. knowledge about important inferential aspects such as point estimation, a test of hypotheses and associated concepts,
- 3. knowledge about inferences from Binomial, Poisson and Normal distributions as illustrations.
- 4. The ability to apply the relevant concepts to real-life problems.

#### **Semester III-**

# BSCHSTSC303 Paper Name: Linear Algebra

After completion of the course, the students will acquire

- linear transformations and matrices, matrix operations, matrices with special Structures
- 2. Learn about the rank and inverse of a matrix, determinants and elementary matrices.
- 3. Be able to use and apply results in linear algebra to regression techniques and other advanced topics in Statistics, Econometrics, Operations Research, etc.
- 4. Use results in linear algebra to present real-life situations in a systematic form.

# **Semester IV-**

# **BSCHSTSC401 Paper Name: Regression Analysis**

After completion of the course the students will acquire

- 1. know about correlation and regression techniques, the two very powerful tools in statistics,
- 2. get an idea of Linear, Polynomial and Multiple Linear regression,
- 3. Learn about regression diagnostics, multicollinearity, residual plots and estimation and tests for regression coefficients.
- 4. Study concept of coefficient of determination and inference on partial and multiple correlation coefficients.

#### Semester V-

# **BSCHSTSC501 Paper Name: Sampling Techniques**

After completion of the course, the students will acquire

- 1. basic knowledge of complete enumeration and sample, sampling frame, sampling distribution, sampling and non-sampling errors, principal steps in sample surveys, limitations of sampling, etc.,
- introduced to various statistical sampling schemes such as simple, stratified, systematic, and PPS sampling,
- 3. Practical knowledge of sampling techniques so that they can apply the relevant concepts to real-life problems.

# Semester VI-

# **BSCHSTSC602** Paper Name: Non-parametric Inference

After completion of the course, the students will acquire

- 1. use different nonparametric/distribution-free tests when data don't meet the assumptions of parametric tests,
- 2. understand the importance of different non-parametric test procedures, their applications, and interpretation,
- 3. To analyze data using various non-parametric tests.
- 4. Analyzes categorical data using logistic regression models.

#### **DEPARTMENT OF URDU (UG)**

#### PROGRAMME OUTCOMES

Our course allows the students to be able to learn and do various types of literary works and help the students for all round development.

- 1: Basic concept: The fundamental concept of Urdu literature is to exchange the ideas, thoughts, knowledge and information that may be fulfilled in the best possible manner, through the effective communication.
- 2: Communication Development:- Students will improve their skill and knowledge of correct speaking and writing in their own subject.
- 3: Effective Citizenship:- Effective citizenship develops the students capacity to feel for the society and be responsible towards their community so as to take corresponding action to support its assets and deal with its concerns.
- 4 : Critical thinking: Students will be able to creatively and critically think which is the process of analyzing a topic or a problem deeply based on relevant information.
- 5: Disciplinary Knowledge: Students will learn to understand the discipline and be capable of demonstrating that knowledge for their personal development in future.

#### PROGRAMME SPECIFIC OUTCOME

- 1:- The students can build up a thorough knowledge about the different forms of Urdu literature and know the concepts of linguistics and develop Reading, Writing and Communication Skills.
- 2:- The students can pursue B.ED course and opt for a teaching career in the schools. They can also go for a Post-Graduation degree.
- 3:- The students can observe and build up a thorough knowledge based on Urdu Literature admired and taught in all parts of the World.
- 4:- Students with in-depth knowledge in Urdu language can pursue a career in the following areas (I) Research (II) Professional Writing (III) Editing (IV) Journalism and Mass Media
- 5:- Students of this stream can critically evaluate the social, economic and political variables for a proper understanding of the plurality of Indian Society.

#### Semester-I

# Lisaniyat Aur Urdu Zaban ka Irteqaa

# **BAHURDC 101**

- 1. The students will get firsthand knowledge about the science of language and its importance.
- 2. Student will be able to gather knowledge about the social, cultural, political, Religious and especially literary contexts of the language from the 10th Century till now.
- 3. They will have the ability to gain knowledge about the various families of language.
- 4. They may understand the different kinds of theories and become acquainted with the creators and the compositions of Urdu Literature.

#### **Semester II**

# **CLASSIKI URDU NASR**

#### **BAHURDC 201**

- 1. Students will be able to know the different types of prose and its details.
- 2. Students will gain in depth knowledge about the beginning and evolution of Urdu prose in Deccan and North India.
- 3. Students will acquire knowledge and know of the significance of letter writing in Urdu literature.
- 4. Students will get to understand the meanings, scopes and approaches to theories in the study of comparative literature.

#### Semester III

#### JADID URDU GHAZAL

#### **BAHURDC 301**

- 1. Students will be familiar with the modern Urdu Ghazal Era.
- 2. Students will be able to critically analyse Ghazals of the famous poets of Urdu.
- 3. Students will know about the changing scenarios, themes and diction of Urdu Ghazal.
- 4. Students will be introduced to the progressive Urdu Ghazal, Modern Urdu Ghazal and post-modern Urdu Ghazal.

#### Semester IV

#### **URDU NOVEL**

#### **BAHURD403**

- 1. Students may develop their knowledge about the forms, definitions and types of Urdu Novels.
- 2. Students will be able to know about the origin and development of Urdu Novel.
- 3. Students will get knowledge to differentiate between Novel and Novella as well as short and long stories.

4. They will acquire knowledge about the important novels of Urdu as well as their eminent writers like Nazir Ahmed, PremChand, Mirza Hadi Ruswa, Rajender Singh Bedi and Quratul Ain Haider.

#### Semester V

#### **URDU AFSANA**

#### **BAHURDC 501**

- 1. Students will acquire knowledge about the form of short story.
- 2. Students will enhance their knowledge about the origins and evolutional stages of Urdu Short Story.
- 3. They are going to be able to understand the various masterpieces of Urdu Short Story genre.
- 4. Students will acquire knowledge about the legendary writers like as Prem Chand, Manto, Krishan Chandra, Bedi, Ismat and Qurattul Ain Haider and their achievements in Urdu literature.

#### Semester VI

# URDU QASIDA AUR MARSIYA

#### **BAHURDC 601**

- 1. Students will gain knowledge about the techniques and properties of Qasida, a mandatory elegiac poem (Elegy) in Urdu.
- 2. Students are going to acquire the knowledge about the evolution and evolutionary period of these poems in Urdu.
- 3. Students are going to learn about the different types of Qasida and Marsiya.
- 4. Students will gain knowledge about the themes of Qasida of Southern and Northern India.

# **DEPARTMENT OF URDU (PG)**

# **Program Outcome:**

Our course makes the students able to learn and get an understanding of literary works and helps the students in all round development.

The outcome of the Urdu program is to develop the research abilities, skills and knowledge about the Urdu literature among the students. It also improves the confidence level of the students and enables them to be good reader and writer. They may be able to face various types of social problems. The course may increase the level of students' ability, activity and prepare them to face the complicated situations of life. They will be able to pursue higher education like M.Phil, P.HD and partake in various research works . Students may improve their abilities through the criticism of each others' opinion. It may increase the students' knowledge of ancient, middle and modern period of Urdu literature. By seeking knowledge the students will be on the path to becoming a better human being.

The objectives of the MA programme in Urdu literature are to develop in the students the following outcome.

#### 1: Effective Communication.

Students may learn the process of exchanging their ideas, thoughts, knowledge and information and this will be fulfilled in the best possible manner, through effective communication.

#### 2: Self Direction.

Students will have the ability to make choices independently and manage their actions and lives without many external forces influencing or dictating them about what they should do in their life which will lead students to have a self direction in life.

# 3: Communication Development.

Student may improve their skill and knowledge of proper speaking and writing in their own subject.

# 4: Effective Citizenship.

Effective citizenship develops the students' capacity to feel socially responsible for their community and to take corresponding action to support its assets and deal with its concerns.

# 5: Critical Thinking.

Students will be able to creatively and critically think about the process of analyzing a topic or a problem completely based on relevant information.

# **Program Specific Outcomes:**

The Course will enable the students to self-learn and write. They will be able to compose literary works. They may prepare research papers for seminars and understand the importance of Urdu Literature. It may increase their self confidence level and they may be able to emerge as a good writers and better human beings.

The main objective of Urdu course is,

- i) To develop research abilities among the students and to train students for research methodology so the he/she can pursue Ph.D. research in a systematic manner ii) To familiarize them with practical criticism so that their research does not become a mere enumeration of facts but exhibits an exercise of the faculties of critical appreciation and evaluation of literary works. The course aspirants need to study theory as well as practical subjects. Apart from this, candidates also need to conduct research and present their research findings. The course will increase students' knowledge about Urdu language and well known Urdu literature. One main purpose of Urdu course is to provide students, knowledge on an international level about Urdu and its literature to introduce levels of criticisms from ancient to modern times of Urdu literature and to make students aware about the importance of Urdu literature and its vastness.
  - 1: Students will be able to think and write creatively and critically and will be able to interpret any piece of writing.
  - **2:** Students will develop communication and employability skills that give them a professional outlook for better performance.
  - **3:** Students will be able to apply their skills in fields such as teaching, publishing, script writing, translations, journalisms, media productions, documenting, reporting, producing documentaries etc.
  - **4:** To create the ability of understanding about different forms of literature among the various types of prose and poetry. Students would be able to develop thought provoking ideas and analytical abilities.
  - 5: Students will pursue research degrees like M.Phil and Ph.D.

#### **Course Outcome**

# Semester-I Urdu Zaban-o-adab ki Tareekh MAURDU102

- 1. Students are made aware about the important historical events related to the formation of Urdu language.
- 2. Students will understand the linguistic features of Deccan Urdu.

- 3. Students are helped with knowledge about the most important schools of Urdu literature like Lucknow School and Delhi School of thoughts.
- 4. To know about the poetic form of Ghazal writings, its techniques, utility and characteristics, life sketch style and importance of Wali, Meer, Sauda and Nazeer in Urdu literature.

# Semester-II Urdu Dastan MAURDU201

- 1. The Students will be able to know about the forms and features of of Daastan.
- 2. Students will acquire knowledge about the tradition of Urdu Daastan in both Southern as well as Northern India.
- 3. Students will know the reasons behind the rise and fall of Urdu Daastan.
- 4. Students will be able to know about the literary contributions of Fort William College in the development of Urdu Daastan.

# **Semester-III**

# Urdu Tanqeed - Traqqi Pasand Tehreek Se Qabal MAHURDC301

- 1. The students will be able to know about Criticism and its importance in Urdu Literature. Through this they may enable themselves to explain the need and importance of Criticism.
- 2. Students will get to know about the different Schools of thoughts of Criticism.
- 3. Students are going to get knowledge about the important Critics and their Criticism with special reference to Hali, Shibli, Azad, Abdul Rahman Bijnori and Neyaz Fatehpuri.
- 4. Students will also get to know about the Western and Eastern concepts of Criticism.

# Semester-IV Urdu main Tanisiyat MAURDU 401

- 1. Students will get to understand about the origin of feminism in Urdu
- 2. Students will acquire the knowledge about the feminism in different parts of the world
- 3. Students will get to know about the different trends in feminism in Urdu.
- 4. Students will get acquainted about the literary works especially in poets of different renowned poets of Urdu.

# **DEPARTMENT OF URDU(M.Phil/Ph.D)**

#### PROGRAMME OUTCOME OF M. Phil/PHD

- **1. Disciplinary knowledge:** Provide students with knowledge, general competence of Urdu Language and Literature emphasizing awareness on traditional Indian wisdom.
- 2. Effective articulation: Students can comprehend complex information and texts and allows them to express thoughts and ideas effectively in writing and orally; communicate using appropriate media and present information in a lucid and concise manner to different groups; formulate coherent arguments; to plan, execute and report the results of an investigation.
- **3. Analytical reasoning:** They can evaluate the reliability and relevance of evidence; identify logical flaws in the arguments of others; analyse and synthesise data from a variety of sources, addressing opposing viewpoints; draw valid conclusions and support them with evidence and examples.
- **4. Critical Thinking:** They will be able to critically review and evaluate national and international literature about interested field in order to their quality and applicability in improving the effective handling the programme of Urdu Language and Literature.
- 5. Research Oriented inquiry: Students will develop a sense of inquiry and capability to ask relevant and appropriate questions, problematise, synthesize and articulate; critically evaluate arguments, claims, beliefs, practices, policies and theories on the basis of empirical evidence; develop research proposal based on literature review; formulate hypotheses and test them, following a scientific approach to knowledge production of Urdu language and literature methods.

# PROGRAMME SPECIFIC OUTCOME OF M.Phil/PHD

- **1. Disciplinary knowledge:** To enable students to critically understand and examine various literary genres of Urdu language.
- **2 Critical Thinking:** Literature contributes to a student forming and developing their own belief, opinions and views. The study of literature inculcates critical thinking the students so that they can contribute to the linguistics, creative, intellectual, social and economic development of the society.

- **3. Effective articulation:** Doctoral level degree plays lead role to solve the academic problems by a set of competencies themselves and increase the articulation of educational goal for students beyond the discipline.
- **4. Research Oriented Inquiry**:Build a strong foundation for future research work in a systematic manner by applying notions of Research Methodology and gained ability to apply knowledge of Computer Science to research in real-world issues.
- **5. Ethical Orientation:** Equip themselves with ethical issues related to Research and Publication.

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#### COURSE OUTCOME OF M. PHIL

#### Semester-I

# Research Methodology MPHILURDC101

- 1. To identify appropriate research topics, select and define appropriate research problem and parameters,
- 2. To develop the quality to write research proposal and thesis.
- 3. This course will also familiarise them with basic approaches to qualitative research.
- 4. To develop an understanding of the ethical dimensions of conducting research
- 5. To develop high-level of proficiency in language/ literary research and in the synthesis of research

#### Semester-II

# **Literary Movements and Trends MPHILURDMJE203**

- 1. The course is designed to result in introduction to various literary trends through ages, classical and modern literary heritage as well as their literary standard
- 2. To result in command over contemporary trends and literary movements of Urdu literature.
- 3. To understand the nature of literary trends and movements
- 4. Ability to understand reasons and motives behind these trends and the impact of various literary movements viz progressive movement, modernism and post modernism on Urdu language and literature.
- 5. To understand the socio and political impact on Urdu literature
  To understand the role of various literary movements as well as literary trends in
  analyzing a piece of literature.

#### Semester-III

#### **Two Seminar MPHILURDC302**

- 1. To demonstrate the knowledge of research skills
- 2. to present their ideas which help them to enhance their skills in constructive way.
- 3. To interpret and evaluate the literature.
  - 4. develop communication and employability skills that give them professional outlook for better performance.

# Semester-IV Dissertation MPHILURDD401

- 1. To demonstrate the knowledge of research skills
- 2. Demonstrate superior written communication skills relevant to the subject link their educational experience directly to their own workplace experience and be proficient in transferring those skills and capabilities to others
- 3. To identify the findings of different topics for the enrichment of the Urdu Literature.
- 4. To inculcate good techniques and methods among his pupils

#### **COURSE OUTCOME OF PHD**

#### **Semester-I**

# Research Methodology PHDURDUC101

- 1. To identify appropriate research topics, select and define appropriate research problem and parameters,
- 2. To prepare a project proposal, organize and conduct research in a more appropriate manner
- 3. This course will also familiarise them with basic approaches to qualitative research.
- 4. To develop an understanding of the ethical dimensions of conducting research
- 5. To develop high-level of proficiency in language/ literary research and in the synthesis of research

#### Semester-I

# **Research and Publication Ethics PHDURDUC102**

- 1. To get aware about the publication ethics and publication misconducts.
- 2. To demonstrate awareness of appropriate methods and ethics used in field research
- 3. To describe and apply theories and methods in ethics and research ethics
- **4.** To acquire an overview of important issues in research ethics, like responsibility for research, ethical vetting, and scientific misconduct.
- **5.** To acquire skills of presenting arguments and results of ethical inquiries.

# Semester-I

# **Computer Application PHDURDUC103**

- 1. To understand the application of computing skills in research.
- 2. To identify the open courseware like INFLIBNET, Shodh Ganga etc.
- 3. To expertise in tools/software like Urdu Inpage, MS-Office, Active Scholar and alike.
- 4. To expertise in Spreadsheets and statistical tools.
- 5. To know the use of presentation tools

# **Semester-ILiterary Movements and Trends MPHILURDMJE203**

- 1. The course is designed to result in introduction to various literary trends through ages, classical and modern literary heritage as well as their literary standard
- 2. To result in command over contemporary trends and literary movements of Urdu

literature,

- 3. To understand the nature of literary trends and movements
- 4. Ability to understand reasons and motives behind these trends and the impact of various literary movements viz progressive movement, modernism and post modernism on Urdu language and literature.
- 5. To understand the socio and political impact on Urdu literature

# **DEPARTMENT OF ZOOLOGY (UG)**

#### **Course Outcome:**

Bachelor of Science (B.Sc.) Honours and program Specific Objectives can be briefly described under some points below:

- 1. Motivate students for higher studies: This program as a whole will develop learning interests in beginners and that further lead to encourage to peruse higher studies in academia.
- 2. Develop knowledge and Critical Thinking ability: These courses develop knowledge and evoke scientific and critical mode of thinking.
- 3. Triggers knowledge of quest: Questioning any incident or event is the key of understanding the reason behind any scientific phenomenon After completing this course, students seem to form a good knowledge of quest or questioning ability.
- 4. Problem Solving ability: Help to equip students with basic skills to analyse problems, formulate several hypotheses, evaluate and validate results, and finally draw reasonable conclusions thereof.
- 5. Developing skill of Team Work: During practical courses and excursions, students learn the basics of successful team work and its benefits.
- 6. Communication ability: This course help to imbibe effective scientific and/or technical communication as writer and orator.
- 7. Developing generic Skills for Employment: To develop a range of generic skills that are relevant to any wage employment, self-employment and/or entrepreneurship.
- 8. Induction of Research Aptitude: Help to establish basic skills and interest which are required to perform research in laboratory after further study at this early stage of life (Undergraduate).
- 9. Awareness for Environment: This course also induces awareness for environment and why we should protect environment for a sustainable better world.
- 10. Awareness as a Citizen: Create awareness to become an enlightened and responsible citizen with commitment to deliver for betterment of society and the Country at large.

# **Course specific Outcome:**

Zoology is a subject that deals with animals from primitive microscopic protozoa to large advanced mammals, across different ecological niches. In B.Sc. course of Zoology, students get proper idea of different type of animals and their physiology, behavior, population dynamics, diseases and the way they interact with other species or environment.

Here are some points which can be considered as program specific outcome of undergraduate course of zoology:

1. Knowledge of animal world: To provide students with the knowledge and understanding of the fundamental theories of living world and capability of developing ideas

based on them. Understand the nature and basic concepts of cell biology, genetics, taxonomy, animal physiology, ecology and applied Zoology etc.

- 2. Dissection and experimental skill: To enhance the skills required to perform research in laboratory and experimental research.
- 3. Computer and bio informative skills: To be capable of using computers and appropriate software for Bioinformatics for analysis of genomics and proteomics data, and employing modern bioinformatics search tools to locate, retrieve, and evaluate location and biological annotation genes of different species.
- 4. Animal Ethical awareness: Learn to handle animals with care and perform euthanasia dissection is with animal ethics in mind.
- 5. Knowledge to avoid plagiarism and encouragement of ethical practises: Capable of conducting their project work with honesty and precision thus avoiding unethical means such as copying from other authors, fabrication, committing plagiarism.
- 6. Empathy for animals: Develops empathy and love towards the animals.
- 7. Skills of employment related to zoology: Making career choices based on the knowledge of biological sciences, Apiculture, Aquaculture etc., either employment or entrepreneurship.
- 8. Knowledge of field studies: he learning aimed at through field study is concerned both animal its niche and their interaction with environment.
- 9. Knowledge about biosafety: During practical classes, students come to know how to handle chemicals and proper idea of biosafety is achieved in this program.
- 10. Presentation skill: Development of project presentation skill.

# **Course Outcomes (CO):**

#### Semester I

#### SYSTEMATICS AND DIVERSITY OF LIFE: PROTISTS TO CHORDATES

Understanding on the diversity of life from protists to non-chordates to chordates and how morphological change due to change in environment helps drive evolution over a long period of time.

The project assignment will also give them a flavour of research to find the process involved in studying biodiversity and taxonomy besides improving their writing skills.

#### **Semester II**

# CYTOLOGY AND HISTOLOGY

Functioning of nucleus and extra nuclear organelles and understand the intricate cellular mechanisms involved and detailed knowledge of different pathways related to cell signalling and apoptosis thus enabling them to understand the anomalies in cancer and other diseases.

#### **Semester III**

#### **DIVERSITY OF CHORDATES**

Understanding on the diversity of life with regard to chordates and their morphological characteristics / structures. Developing critical understanding how animals changed from a primitive cell to a collection of simple cells to form a complex body plan and evolutionary history of a taxon.

#### Semester IV

#### **CELL BIOLOGY**

Acquire the detailed knowledge of different pathways related to cell signalling and apoptosis thus enabling them to understand the anomalies in several genetic diseases and how cells work in healthy and diseased states and to give a 'health forecast' by analysing the genetic database and cell information.

#### Semester V

#### **DEVELOPMENTAL BIOLOGY**

From a single-celled fertilized egg to fully developed embryo embryo, how the whole process is happening have to be learned. Three important processes of cell division, cell differentiation and morphogenesis. Understanding how developmental processes and gene functions within a particular tissue or organism can provide insight into functions of other tissues and organisms.

#### **SEMESTER VI**

#### PRINCIPLES OF GENETICS

Understanding how DNA encodes genetic information and the function of mRNA and tRNA. Application of the principles of Mendelian inheritance will be learned. The epigenetic modifications and imprinting and its role in diseases and joining research in related areas such as genetic engineering of cells, cloning, genetic disorders, human fertility programme, genotoxicity, etc.

# **DEPARTMENT OF ZOOLOGY (PG)**

# **PROGRAM OUTCOMES (PO):**

The primary objective of the program is to impart quality education in the subject of Zoology as a basic science and its applied branches to the students. The Department is having the following objectives:

- 1. The course develops criticality of outlook and insight, in order to push at the boundaries of knowledge and expand one's understanding of the world.
- 2. It provides quality education in a branch of Biological sciences i.e. Zoology with different specializations with offering skill based programs and motivate the students for self-employment in applied branches of Zoology.
- 3. Development of a collaborative research climate, so that students and teachers can participate in research activities in partnership with other reputed national/international research institutes or universities, and can contribute significantly to research output.
- 4. The course gives an opportunity to promote application for the wide range of subject based skills to various fields that provide a base for future career in disciplines such as Health Sciences, Agriculture, Environmental Management, Biotechnology, Teaching and Research.
- 5. The Academic program provides opportunities for professional and personal development through curricular and co-curricular activities of students.

# PROGRAM SPECIFIC OUTCOMES (PSO):

A zoologist is not simply an animal behavior expert, but also studies animal diseases, life process, reproduction, feeding habits and the number of certain animals.

- 1. Zoology makes a huge impact on world through the scientific study of the evolution, anatomy, physiology, behavior, habitats and health of animals and humans. It includes diverse approaches such as electron microscopy, molecular genetics and field ecology etc.
- 2. Enabling the students to understand the fundamental questions and knowledge of Animal taxonomy & evolutionary biology. Explore the ways in which Zoologists go about studying these questions.
- 3. It will help the students to demonstrate an understanding of fundamental biochemical principles, such as the structure/function of biomolecules, metabolic pathways, and the regulation of biological/biochemical processes.
- 4. Students may apply their knowledge of cell biology to selected examples of changes or losses in cell function. These can include responses to environmental or physiological changes, or alterations of cell function brought about by mutation.

- 5. Developing the fundamental questions and knowledge of ecology and behavioral biology. Explore the ways in which students may acquire the knowledge to solve the inquisitive areas of ecology and behavioral biology and analyze the relationship between theoretical & practical approach in the field of ecology & behavioral biology.
- 6. Perform, Assess and implement practical techniques and procedure to solve biological problems, analyse and quantify data collected during any project.
- 7. Students can understand the applications of Biological techniques to various fields of biology.
- 8. Inculcating the spirit of resource conservation and love for nature by understanding environment natural resources.
- 9. Students can be able to identify the potential impact of different aspects on agriculture, human health and society in general.
- 10. Enabling to correlate the Host –Parasite interaction, analyze the pathogenicity with nature of parasite species and knowledge of parasites & vector control for human welfare.

#### **COURSE OUTCOMES (CO):**

#### 1. Semester-I

# **Course Name: Biosystematics and Taxonomy**

Extensive role in understanding the gradual development and evolutionary history of different kinds of living organisms from earlier forms over several generations and classify animals on the basis of their relation to other animals by body structure, external characters, development and DNA. Application of the International rules of Nomenclature to give a scientific name to animals which are found during research work.

# 2. Semester-II

# Course Name: Ecology and Behavioural Biology

It provides knowledge of the interdependence between people and nature that is vital for food, maintaining air and water and sustaining biodiversity in a changing climate. Behavioural biology allow to assess animal feelings and brings out a stronger position to vexing conservation problems like to save endangered species, assess environmental quality etc.

# 3. Semester-III

# **Course Name: Applied Entomology**

Student will be able to classify insect up to their respective orders. Understand the difference in the life cycles of insects and various ecological importance of insects along with the physiological aspects and modern concept of pest management.

#### 4. Semester-IV

# **Course Name: Aquaculture and Fisheries**

Development of skills for understanding the culture techniques, farm management, hatchery operations and farming of aquatic organisms for increasing food production along with knowledge in harvesting and marketing strategies.