SAO CHANG COLLEGE TUENSANG: NAGALAND – 798612



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PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES & COURSE OUTCOMES OF BA &BSC PROGRAMS

POs of BA Programs

- **PO1.Critical Thinking**: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication**: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
- **PO3. Social Interaction**: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.** Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
- **PO5. Ethics**: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO6. Environment and Sustainability**: Understand the issues of environmental contexts and sustainable development.
- **PO7. Self-directed and Life-long Learning**: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

POs of BSc Programs

- **PO1 Scientific temperament:** Boost critical questioning and observation. Applying them in hypothesizing and testing to better understand the physical, chemical and biological aspects of life.
- **PO2 Ethics:** Acknowledge different value systems, understand the moral dimension involved and also own responsibility for them.
- **PO3 Individual and team work:** Function effectively as an individual or as a member or leader in diverse team under different circumstance and in multidisciplinary settings.
- **PO4 Scientific communication:** Effective communication of scientific knowledge to science as well as non-science audience in simpler and understandable language.
- **PO5 Tools and techniques:** Equip basic understanding of handling modern scientific tools and gadgets, while also enriching scientific techniques and procedures.
- **PO6 Environment and sustainability:** Understand the real issue on environment, it's problem and mitigation and sustainable development.
- **PO7 Self-directed and lifelong learning: -** Acquire skills to engage in independent and life long learning in the broadest context of socio-technological changes.

Department of Botany

Programme Specific Outcomes:

PSO 1 To boost critical questioning and observation. Applying them in hypothesizing and testing to

better understand the physical, chemical and biological aspects of life.

- **PSO 2 Acknowledge** different value systems understand the moral dimension involved and also own
 - responsibility for them.
- **PSO 3** Function effectively as an individual or as a member or leader in diverse team under different circumstance and in multidisciplinary settings.
- **PSO4** Effective communication of scientific knowledge to science as well as non-science audience in simpler and understandable language.
- **PSO5** Equip basic understanding of handling modern scientific tools and gadgets, while also enriching scientific techniques and procedures.
- **PSO6** Understand the real issue on environment, it's problem and mitigation and sustainable development.
- **PSO 7** Acquire skills to engage in independent and life long learning in the broadest context of socio-technological changes.

Course outcomes

BOT-101 & 102-Biodiversity of Bacteria, Algae, Fungi and Viruses

- CO1- Understanding the origin and evolution of Biodiversity.
- CO2- Describe, identify and classify bacteria.
- CO3- Describe the structure, classification and reproduction of few classes of algae.
- CO4- Describe the structure, reproduction of few fungi and general account of lichens.
- CO5- General account of virology.

BOT-201 & 202-Biodiversity Of Archegoniatae And Paleobotany

- CO1- General characteristic, classification and reproduction of some bryophytes.
- CO2- Write on origin, general characteristics, classification and life cycle of some pteridophytes.
- CO3-General account, classification, structure and reproduction of some gymnosperm.
- CO4- General account on fossil flora, fossil types and geological time scale.

BOT-301 & 302-Morphology, Anatomy And Angiospermic Taxonomy

- CO1-Study vegetative morphology of dicots and monocots.
- CO2- Floral morphology
- CO3- Write down the classification, structure of different types of plant tissues.
- CO4- Classification and taxonomic studies of some angiospermic families.
- CO5- Classification and taxonomic studies of some angiospermic families.

BOT-401 & 402-Plant Physiology And Ecology

- CO1- Write down the role of essential nutrients in plant metabolism and physiological process in uptake of water.
- CO2- Describe the photochemical and respiration process.
- CO3- Effect of plant growth hormones and physiology of plant development.
- CO4- Understanding the structure and function of ecology.

BOT-501 & 502-Biochemistry And Plant Breeding

- CO1- Study of basic concept of biochemistry.
- CO2- Classification and biosynthesis of carbohydrates.
- CO3- Study of lipids and nucleic acid.
- CO4- Structure, classification and characteristics of proteins.
- CO5- Principles and methods on plant breeding.

BOT-601 & 602-Cell Biology And Genetics

- CO1- Basic concept of cell biology.
- CO2- To study the different component of cell.
- CO3- Describe the various stages of cell cycle.
- CO4- Basic concept of genetics.
- CO5- To study the different kinds of aberrations in chromosomes, its affects and causes.

Department of Chemistry

Programme Specific Outcomes:

- **PSO 1** To impart knowledge on different topics of Chemistry viz, Inorganic, Organic and Physical Chemistry in the level expected from a science graduate so that the students are at par with the others from different universities in India.
- **PSO 2** To motivate and encourage the students for their overall development as they become a graduate and search for a foothold in the competitive world.
- **PSO 3** To impart understanding on the importance of chemistry as a subject and expose the students on the various opportunities and career options after their graduation.
- **PSO 4** To provide hands on laboratory experience by performing relevant and contemporary practical which will enhance their theoretical knowledge.

Course Outcomes:

CHEM-101& 102 - Inorganic

- CO1 Structure and properties of atoms, idea of classification of elements in the periodic table and their trend in its properties.
- **CO2** Rules governing the formation of molecules either by sharing of molecules or ions.
- **CO3** Properties of s and p block elements in the periodic table and the importance of noble gases in chemistry
- **CO4** The process of loss or gain of electrons resulting in oxidation or reduction and its applications in everyday life.
- **CO5** Fundamental idea of nuclear particles, its application in medicinal field, useful application and harmful effects that can be brought about by nuclear reaction (fission and fusion).
- **CO6** Definition and classification of acid and bases by different chemist, effects of substituent on acidity and relative strength of acid and bases of interaction of acid and bases in complex formation
- **CO7** Difference between qualitative and quantitative analyses, preparation of standard solution process involved in titration, uses of indication in titration.

CHEM-201 & 202-Organic

- CO1 Concept of hybridization in explaining the shape of molecules/ions, movement of electron in a molecules and the way by which bond is broken or cleaved. Representation of molecules, assigning of configuration (R&S, E&Z, Cis-tans).
- CO2 Preparation of alkane an cycloalkene (name reaction) properties, free radicals, halogenations, uses of Bayer strain theory in explaining the bond angles. Basic concept of alkenes and alkynes, structure and physical properties.
- CO3 Knowledge of benzene and its structure. Aromaticity rules and mechanism. Basic concept of dissociation, nucleophilic and electrophilic and its intermediates. The process of SN1 and SN2 mechanism and elimination reaction.
- **CO4** Formation and nomenclature, chemical properties of alkyl and aryl halides. Application of polyhalogen compound like chloroform, carbon tetrachloride and DDT.

- **CO5** Preparation, nomenclature, classification and its physical and chemical properties of alcohol and phenol.
- CO6 Difference between aldehydes and ketones. The basic properties of aldehydes and ketones and its mechanism
- CO7 Nomenclature of ether and epoxides, its physical and chemical properties

CHEM-301& 302-Physical

- CO1 Concept of thermodynamic system, laws of thermodynamics, variation of heat capacities. Application of thermodynamic in bond dissociation. Basic concept of mathematics (rules of logarithm)
- CO2 Basic concept of kinetic theory of gases, derivation of real gas from idea gas equation, molecular collision.
- CO3 Types of interaction of molecular forces, structure of liquids, hydrogen bonding and its impact on melting and boiling point of molecules.
- **CO4** Classification, structure and properties of ligand crystals.
- CO5 Formation of colloids and its effect in nature, important of colloids in our everyday life.
- **CO6** Rules governing adsorption, isotherms obtain from adsorption and its application, concept of catalysis, properties, types and the terms involved in the transformation.
- **CO7** Conductivity of metals, solution, bases of classification of electrophiles as weak ands strong electrolytes, theories of electrolytes.
- **CO8** Changes taking place in reaction classification of order of reaction and derivation of integrated rate equation factors affection the rate of reaction.
- **CO9** Concept, characteristics and determination of macromolecular. Concept of average number and mass average molecular weight

CHEM-401& 402- Inorganic

- **CO1** Describe the position and properties of transition elements in the periodic table, complex formation; differentiate between 1st, 2nd and 3rd transition elements.
- **CO2** Understand principle of radioactivity, theories and series, Kinetics, Interaction of nuclear forces, nuclear reactor types and calculation of nuclear energy.
- CO3 Understand the principle of radioactivity, theories, nomenclature classification of ligands, structure and Isomerism in coordination complexes, Bonding VBT and CFT for octahedral and tetrahedral complexes.
- CO4 Gets the knowledge of the composition of atmosphere, Particulates matters its effects, Acid rain-causes and effects ,Role of ozone in the atmosphere, global warming causes and effects .Pollution –causes, effects and control measures or remedies measures.
- CO5 Understand the position n and properties of lanthanides and actinides in the periodic table, lanthanide and actinide contraction-causes and consequences .Composition of lanthanides and actinides .Separation of are elements and preparation, Structure and uses of uranium hexafluoride.
- CO6 Define solvent, extraction; understand the different process of solvent extraction. Define chromatography, gives its classification nature of adsorption ands solvent system; understand the principles of differential migration IRF values.

- **CO7** Stud of the following; Activated charcoal, allotrophy, isomerism, alloy and amalgams, principles of idometry and iodometry, resins-cationic and anionic resins, molecular sieves, Carborandum.
- **CO8** Define inorganic polymers, gives the classification and comparism with organic polymers, Undersatnds the synthesis, Properties and uses of the different inorganic polymers.
- **CO9** Defines metals carbonyls, understand the principles structure, bonding, understand the synergic effect, reactions of ferrocenes and carbonylate anion.
- **CO10** Define non-aquoues solvents, understand the types ,properties understand the reaction medium for effective functioning.

CHEM-501 & 502-Organic

- **CO1** Understand the nomenclature, structure, bonding, preparation, properties of carboxylic acid, effects of substituent on the acidity of carboxylic acid.
- CO2 Understand the preparation and properties of esters, amides, acid anhydrides and maleic acid.
- CO3 Defines tantomerism, gives the difference between tantomerism and resonance. Learn the synthetic application of diethyl malonate, actyl acetoacetate and ethyl cyanoacetate.
- **CO4** Understand the method of preparation, chemical reaction of nitroalkanes, gets the idea about the preparation. Properties and uses of picric acid.
- CO5 Understand the nomenclature, preparation, properties of amines, alkyl and aryl amines. Learn Gabriel phthalamide and Hoffmann bromide reaction, gives the distinction and separation of primary, secondary and tertiary amines.
- CO6 Defines organometallic compound, understand the preparation and uses of Grignard reagent in synthesis of alkanes, alcohol, carboxylic acid, aldehyde, ketones, amines. Understand the preparation, properties and uses of alkyl lithium. Understand the classification, structure and properties of amino acid, peptide and proteins.
- CO7 Understand the nomenclature, classification, structure of carbohydrate. Osazone formation, chain lengthening and shortening, interconversion of glucose, fructose, configuration, formation of glycoside, ether ester. Cyclic structure of D (± glucose and mutarotation.
- CO8 Understand the ring determination of $D(\frac{1}{2})$ glucose. Gets the idea of structure and reaction of disaccharide, preparation of cellulose, nitrate, cellulose acetate, rayon and cellophane.
- **CO9** Define dyes, understand the electronic concept of dyes, classification and synthesis of dyes (methyl orange, cango red, malachite green crystal violet, phenolphthalein, fluorescence, alizarin and indigo).
- **CO 10** Define fats, oil and detergent. Understand their preparation and properties. Understand saponification value, acid value and synthetic detergent
- CO11 Define diazo compound, understand the preparation and reaction of benzene diazonium salt and diazomethane.

CHEM-601 & 602- Physical

- **CO1** Limitation of 1st Law of thermodynamn9ics, different statement of the second law of thermodynamics, and its application in heat engine .Second law of thermodynamic relation with temperature, pressure volume .Concept of enthropy, clausius inequality, Entropy change in ideal gases and mixing of gases.
- CO2 Definition of unit cells, space lattice, Law of crystallography, Symmetry rationality indices-Ray diffraction by crystal, derivation of Bragg Equation of crystal, Determination of crystal structure structure of NACl,Kcl and CsCl. Knowledge of imperfection in a crystal.
- **CO3** Real gases –deviation from ideality. Compresssibility factor, Maxwell's distribution of law of molecular speeds, molecular speeds and energy distribution as a function of temperature.
- CO4 law of mass action, equilibrium constant (Kc) from thermodynamics derivation of law of mass action, temperature and pressure dependence of equilibrium constant. Basic knowledge of Vant Hoff equation, between Kp and Kc. Difference between homogenous and heterogenous system, Le Chatelier's Principle, Clausius-Clapeyron Equation.
- CO5 Dissociation of weak electrolytes, dissociation constant of weak acids(Ka),ionic products of common ion effects, Buffer solution and buffer activity, Calculation of PH value of Buffer mixtures, Henderson Hassenbalch equation, hydrolysis constant of a base, relation between Ka, Kw and Kb. Knowledge on hydrolysis for salts of strong acids and weak acids.
- **CO6** Introduction n of Photochemistry, Law of photochemistry, Quantum Efficiency and Jablonski diagram.
- CO7 Structure of liquids, physical properties of liquids –vapour pressure, Surface tension, Viscocity, refractive indices concept and its determination. Basic knowledge on molar volume,parachor,specific and molar refraction, polar and non-polar liquids, dielectric constant, dipole momenr,polarization,clausius mossotti equation.
- CO8 Principle of third law of thermodynamics, Nernst Heat Theorem, Statement and concept of residue entropy, evaluation of absolute entropy from heat capacity data. Gibbs and Helmholtz equation. Derivation of Gibbs Function and Helmholtz as thermodynamics qualitity, concept of Trouton's rule, Clausius clapeyron equation, Maxwell's. Chemical potential and Gibbs Duhem Equation and definition of potential

Department of Physics

Programme Specific Outcomes:

PSO1: Acquire adequate knowledge of the subject

PSO2: Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of Physics experiments.

PSO3: Craft a foundation for higher learning **PSO4**: Be initiated into the basics of research

PSO5: Attain skills for communication and career

PSO6: Learn to tolerate diverse ideas and different points of view

PSO7: Become empowered to face the challenges of the changing universe

PSO8: Create an awareness of the impact of Physics on the society, and development outside the scientific community.

Course Outcomes

PHY 101 & 102 - Mechanics. Properties of matter. Relativity and electricity

- CO1 Fundamental principles and laws of physics that govern the microscopic world
- CO2 Elastic properties of solids and fluids in motion
- CO3 Inter-relationship between space, time and mass and the equivalence between mass and energy
- **CO4** Study the behaviour of alternating currents in various circuits . Hands on practical learning experience

PHY 201 & 201 – Thermal Physics and Oscillations

- CO1 Principles of kinetic theory of gases and black body radiation
- **CO2** Study of relationship between heat and work, and thermal properties at ultra cold temperature.
- **CO3** Theory of simple harmonic motion and its use in progressive wave.
- **CO4** Equation of motion of a vibrating string and its different frequencies.
- **CO5** Principles and properties of sound waves in solid and fluid.
- **CO6** Various applications of sound wave in real life: hall, acoustic, music etc Hands on practical learning experience.

PHY 301 & 302 – Electrodynamics and Ouantum Mechanics

- **CO1** Basic knowledge of Electrostatics
- **CO2** Fundamental principles governing electric fields in uniform field, non uniform field and in matter.
- CO3 Magnetic field in uniform field and in matter
- **CO4** Basic laws governing electrodynamics
- **CO5** Dual nature of matter and radiation, and basic concepts of uncertainty principle.
- CO6 Schrodinger equation and its application in wave mechanic. Hands on practical learning experience

PHY 401 & 402 - Electronics and Optics

- **CO1** P-N junction diode and its role in different circuit
- **CO2** Construction of transistor and its principle of operation in transistor biasing, transistor amplifier and in field effect transistors.
- **CO3** Principles of image formation from geometrical considerations and its corrections
- CO4 Detail analysis of interference of light and its verification
- CO5 Study of diffraction of light emphasizing Fraunhofer diffraction and fresnel diffraction
- **CO6** Phenomenon of polarization and Lasers. Hands on practical learning experience

PHY 501 & 502 – Nuclear Physics and Solid State Physics

- **CO1** Nuclear structure and radioactivity
- CO2 The basic fundamentals of nuclear reactions emphasizing on the importance of fission and fusion
- **CO3** Particle detectors and accelerators
- CO4 Study of crystals and its different structures, and bonding
- CO5 Band theory of solids and its importance in semiconductor
- **CO6** Phenomenon of superconductivity and its nature in high temperature. Hands on practical learning experience

PHY 601 & 602 – Atomic Physics, Particle Physics & Cosmic Rays

- **CO1** Different types of atom model
- CO2 Effect of magnetic and electric field in atom, and many electrons atoms
- CO3 X-Ray spectra and Different laws to emphasize X-Ray Spectra
- CO4 Study of vibrational and rotational spectra of molecules
- **CO5** Classification of elementary particles, interaction and decay
- **CO6** Study of cosmic rays and the effect of earth's magnetic field. Hands on practical learning experience

Department of Zoology

Programme Specific Outcomes:

- **PSO 1** Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms
- **PSO 2** Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment
- **PSO 3** Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
- **PSO 4** Understands the basic evolutionary process of animals
- **PSO 5** Correlates the physiological processes of animals and relationship of organ systems
- **PSO 6** Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species
- **PSO 7** Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, lac culture and apiculture.
- **PSO 8** Understands about various concepts of genetics and its application and importance in human health
- **PSO 9** Apply the knowledge and understanding of Zoology to one's own life and work
- **PSO10** Develops empathy and love towards the animals

Course Outcomes:

ZOO 101&102 Introduction to Non-chordates

- **CO1** Understand basic knowledge of taxonomy.
- **CO2** Describe general characteristics of phylum protozoa and distinguish non-parasitic protozoa (example Amoeba & Entamoeba).
- **CO3** Describe salient characteristics of phylum porifera and the different canal systems.
- **CO4** Basic understanding and classification of phylum coelenterate with special reference to coral and polymorphism.
- **CO5** Describe platyhelminthes and their parasitic adaptations.
- **CO6** Describe aschelminthes and their parasitic adaptations.
- **CO7** Understand the salient features of annelida, including metamerism.
- **CO8** Describe arthropoda and the process of moulting and metamorphosis in insects.
- **CO9** Describe and distinguish mollusca from echinodermata.
- CO10 Basic concept of torsion and detorsion in mollusca and the water vascular system in echinodermata.
- **CO11** Temporary mounting techniques and identification of museum specimen and permanent slides.

ZOO: 201 & 202 Introduction to Chordates and Evolution

- **CO1** Describe the characteristics of chordates and its distinction from protochordates.
- CO2 Basic concepts of agnatha and retrogressive metamorphosis.
- CO3 Similarities and dissimilarities between pisces and amphibian.
- **CO4** Basic concept of migration and parental care in fishes.
- **CO5** Describe reptilian characteristics and distinguish between poisonous and non-poisonous snakes.
- **CO6** Understand aves and their flight mechanisms which help them in migration.
- **CO7** Understand different types of mammals.
- **CO8** Importance of paleontological and geological time scales in understanding evolution.
- **CO9** Understand natural control and selection in the animal kingdom.
- **CO10** Preparation of temporary mount and identification of museum specimens and permanent slides.

ZOO 301 & 302- Cell and Molecular Biology

- **CO1** Distinguish prokaryotic and eukaryotic cells, biomolecules, cell cycle and cell components.
- CO2 Understand different cell organelles and their functions.
- CO3 Understand chromosome, their chemical composition and the different types of special chromosomes.
- **CO4** Understand flow of genetic information and types of genetic material.
- CO5 Identification of cell organelles, basic knowledge of cytochemical staining.

ZOO-401 & 402: Developmental Biology and Physiology

- CO1 Basic knowledge of developmental biology with reference to early and later embryonic development
- CO2 Describe neuron, its function and muscle contraction
- **CO3** Basic understanding of carbon and oxygen transport in blood.
- CO4 Understand the process of digestion and different mode of excertion
- **CO5** Elementary idea about blood group, endocrine and exocrine glands and their hormones secretion
- **CO6** Identification of embryological slides
- **CO7** Basic knowledge of haematology

ZOO-501 & 502 : Biochemistry and Genetics

- **CO1** Basic knowledge of biomolecules and the different metabolic pathways associated with them.
- CO2 Understand characteristics of enzyme and their mode of action
- CO3 Understand classical genetics and its principles, distinguish different type of gene interaction
- **CO4** Distinguish between linkage and crossing over and factors affecting sex determination
- **CO5** Understand basic biochemical experiments.

ZOO-601 & 602 : Ecology & Applied Zoology

- **CO1** Understand the basic concept of ecology
- **CO2** Distinguish population and community and their interaction with the environment
- CO3 Understand the basic concept of epidemiology and applied entomology
- CO4 Understand the basic concept of aquaculture
- **CO5** Basic knowledge of insect control and their economic impact
- CO6 Acquire knowledge on ecological tools and techniques
- **CO7** Identification of parasitic protozoan causing human diseases.

Department of Mathematics

Programme Specific Outcomes:

- **PSO1** To develop an understanding of the underlying unifying structures of Mathematics (i.e, Sets, relations and functions, logical structure) and the relationship among them.
- **PSO2** To be well grounded in the basic manipulative skills level of Algebra, trigonometry and beginning level calculus.
- **PSO3** To develop and understand the value of proof, the single factor that distinguishes mathematics from other disciplines, and will demonstrate proficiency in writing and understanding proofs
- **PSO4** To be able to transmit mathematics ideas both orally and in writing.
- **PSO5** To investigate and apply mathematical problems and solutions in a variety of contexts related to science, technology, business and industry

Course Outcomes

MAT 101 - Calculus I & Algebra I

CO1:Functions and its limits

CO2:Derivatives of function and its applications

CO3:Integration using different methods

CO4:Theory of equations

CO5: Algebra of Matrix and its applications

MAT 201 - Calculus II & Algebra II

CO1:Higher order derivatives and its application

CO2:Integration by special devices

CO3:Definite integral: properties and application

CO4:Different types of sequences and series

CO5:Group, sub-groups and cyclic groups

CO6:Introduction to Rings, integral domain and fields

MAT 301 – Advanced Calculus I & higher trigonometry

CO1 Tangents, normals and curvatures

CO2 Functions of several variables

CO3 Improper and multiple integrals

CO4 De Moivre's theorem amd its application

CO5 Exponential, trigonometric and logarithm of a complex number

MAT 401 – Advanced Calculus II & Geometry

CO1Family of curves: envelopes, evolute and involute

CO2 Calculation of length, areas and volume using calculus

CO3 Differential equation

CO4 2-dimentional geometry

CO5 3-dimentional geometry

MAT 501 - Mechanics I and numerical method

CO1 Simple harmonic motion

CO2 Orbital motion

CO3 Motion on a rough curve, resisting medium4

CO4 Interpolation and its application

CO5 Central difference formula

CO6 Numerical differentiation and integration

MAT 601 – Mechanics II and vector analysis

CO1 System of coplanar forces

CO2 Work: properties and its application

CO3 Center of gravity and friction

CO4 Vector algebra

CO5 Vector differentiation and integration

Department of Economics

Programme Specific Outcomes:

PSO1: To acquaint the students with the basic concepts of economics and its practical applications in the daily life.

PSO2: To expose the students to the basic principles of economic theories and to prepare them to think like an economist and apply the economic concepts in real life situations.

PSO3: To give conceptual clarity to the students along with the use of mathematical and statistical tools and reasoning and also the method of applying the same to economic theory in general.

PSO4: To expose the students to the current economic trend with special reference to India along with the awareness in line with the local economic situations and highlight economic and planning history of India along with the most recent reforms.

PSO5: To study trends in national income and international trade and to understand the working of banks and the operation of fiscal and monetary policies.

PSO6: To understand the system of taxation and the most recent changes in the tax system along with the budgetary policy.

Course Outcomes

ECO-101: Micro Economics -I

CO 1: Describe the meaning of economics and basic economic problems.

CO 2: Explain the Cardinal and Ordinal Utility Analysis.

CO 3: Distinguish between Law of variable Proportion and Law of Returns to Scale.

CO 4: Derive the long run and short run cost curves and point out their relationship.

CO5: Point out the nature and scope of welfare economics.

ECO-201: Micro Economics -II

CO 1: Discuss the equilibrium of a firm under different markets.

CO 2: Write the concept of Chamberlin's approach to equilibrium.

CO 3: Classify the various models of Oligopoly.

CO 4: Point out the various concept of Wage.

CO 5: Explain the risk and uncertainty theory of profit.

ECO-301: Macro Economics -I

CO 1: What are the different methods of measuring National Income.

CO 2: Define the concept of Aggregate Demand and Aggregate Supply function.

CO 3: Discuss the concept of Consumption Function.

CO 4: Distinguish between Classical and Neo- Classical Theory of interest.

CO5: Explain the concept of Marginal Efficiency of Capital.

ECO-401: Macro Economics –II

- **CO 1**: Describe the Cash Transaction Approach of Quantity Theory of Money.
- **CO 2**: Identify the different function of Central Bank.
- **CO** 3: Write the major policies of RBI related to money supply.
- **CO 4**: Write down the causes and effects of Inflation.
- **CO 5**: Discuss the various phases of Trade Cycle.

ECO-501: Indian Economy –I

- **CO 1**: Write down the features of Indian Economy.
- **CO 2**: Describe the causes of unemployment in India.
- **CO** 3: Write down the performance of National Income after Independence.
- **CO 4**: Discuss the achievements and failures of India's Five Year Plan.
- CO 5: Point out the performances of Nationalized Bank in India.

ECO-601: Indian Economy –II

- **CO 1**: Discuss the factor determining Agriculture productivity in India.
- CO 2: Discuss the problem faced by Small Scale Industries in India.
- **CO** 3: Describe the direction of India's Foreign Trade.
- **CO 4**: Write down short notes on Natural Resources in Nagaland.
- **CO 5**: Point out the backwardness of Industrial Development in Nagaland.

Department of Education

Programme Specific Outcomes:

- **PSO1**: To understand the concept of Psychology, Dimensions of Growth and Development, acquaint with the knowledge of Intelligence and Creativity and different aspects of personality development.
- **PSO2**: To develop the ability to analyse classroom teaching learning and developed a positive attitude towards life and the teaching profession
- **PSO3**: To understand the role of education in relation to social change, social interaction, culture and appreciate the role of community in resolving social issues and educational in equalities.
- **PSO4**: To enhance the ability of decision making in educational management.
- **PSO5**: To understand the historical development of education in india, the salient features of ancient and medieval education and also to acquaint with the genesis of modern Indian education.
- **PSO6**: To understand the structure of Education in contemporary India.
- **PSO7**: To Develop and understanding of the role of major schools of philosophy in education
- **PSO8**: To develop understanding of a good measuring instrument and their importance in educational measurement.
- **PSO9**: Analyze and discuss works of American literature from a range of genres

Course Outcomes

EDN-101: Psychological Bases of Education.

- **CO 1**: Explain the concept of educational psychology.
- **CO 2**: Explain the meaning of growth and development.
- **CO 3**: Explain the meaning of intelligence and creativity.
- **CO 4**: Describe the theories of learning.
- **CO 5**: Describe personality and its nature, determinants and approaches.

EDN-201: Sociological Foundations of Education.

- **CO 1**: Explain the relationship between sociology and education.
- **CO 2**: Discuss the role of education as an instrument of social change.
- **CO** 3: Explain the different types of social group.
- **CO 4**: Role of education in preservation and transmission of culture.
- **CO 5** Concept about equalization of educational opportunities.

EDN-301: Development of Education in India.

- CO 1: Knowledge about education in ancient India.
- CO 2: Explain the educational system in medieval India.
- CO 3: Discuss the contribution of Christian missionaries for educational development in India.
- CO 4: Explain the growth of modern system of education.
- CO 5: Have knowledge about the movement for compulsory education in India.

EDN-401: Philosophical Foundations of Education.

- CO 1: Meaning of educational philosophy.
- CO2: Explain the role of education towards national integration and international understanding.
- CO 3: Discuss the major schools of philosophy.
- CO 4: Discuss the development of values.
- CO 5: Explain the importance of discipline in social life.

EDN-501: Education in Modern India.

- CO 1: Discuss the development of Indian education in post-independence period.
- CO 2: Describe the National Policy on Education (NPE, 1986) and revised formation of 1992.
- CO 3: Cite the educational provisions.
- CO 4: Explain the problems of education and literacy status of India and Nagaland.

EDN-601: Educational Technology.

- CO 1: Explain the educational technology.
- CO 2: Discuss the mass media approach to educational technology.
- CO 3: Describe the system approach and instructional system.
- CO 4: Explain the personalized system of instruction (PSI)

Department of English

Programme Specific Outcomes:

PSO1: Demonstrate a broad understanding of literatures in English and translation and appreciate the role that historical context plays in the creation and interpretation of literary works

PSO2: Evaluate how literature influences the social and political history of each period.

PSO3: Engage questions of justice, value, spirituality, and meaning raised by literary texts

PSO4: Identify the literary, cultural, historical, political influence of fictional works in the literary world.

PSO5: Differentiate various schools and forms of drama

PSO6: Identify the elements of good academic writing

PSO7: To comprehend and appreciate literary writings of Nagaland

PSO8: Develop an aptitude for critical analysis of literary works

PSO9: To describe, analyze, interpret, and evaluate features of literary texts in several

genres, using appropriate literary and cultural terms and contexts

PSO10: Analyze and discuss works of American literature from a range of genres

Course Outcome

ENG-101: Poetry, Basic English usage and Language Skill

- CO1 Poetry helps the students in sharpening their creativity and imaginative mind. They also teach moral value, human psychology and attachment of human being with the nature.
- CO2 Studying grammar helps the students in their grasp of English language, its construction and usage. It helps them in writing perfect sentences and their conversation.
- CO3 It helps the students in their composition of proper format in writing official letters, commercial letters, scholarly writing etc. It paves ways for the students in writing dissertations, academic and scholarly books.

ENG-201: Drama. Prose & Language Skills

- CO1 The students get to imbibe fictitious narratives of western world. They are acquainted with the style of writing in old English. It acquaints the students about oratory technique.
- CO2 The students get knowledge about the extracts of the novel and its style of writing literary essays. The essays put an impact upon the creative thinking of the students and draft a narrative from the environmental details.
- CO3 It help the students in writing official letters, Commercial letters etc and pave ways for the Students in writing academic and scholarly Books.
- CO4 The creative ability of students are enhance through their composition of poems, stories etc. They develop patient for writing after learning the accurate style and technique.

ALTE-301: POETRY, SHORT STORY & COMPOSITION

- CO1 It helps the students in sharpening their creativity and imaginative mind. It acquaints the students with western spiritual poetry writing which deals with the nature and soul.
- CO2 The students are acquainted with western style of narrative writing. They are also acknowledged about social and cultural impact upon the stories created by the western narrators.
- CO3 The students are introduced with on the spot writing of conclusive writing.

ALTE-401: PROSE, POETRY, PLAY & LANGUAGE SKILLS

- CO1 The students get knowledge about the extracts of the novel and its style of writing literary essays. The essays put an impact upon the creative thinking of the students and draft a narrative from the environmental details
- CO2 The students are introduced with basic of drama writing. The one act comedy develops the patient of the students of drama writing. They also learn the moral through a funny situation.
- CO3 It helps the students in sharpening their creativity and imaginative mind. They also teach moral values, human psychology and attachment of human beings with the nature.
- CO4 It helps the students in their composition of proper format in writing official letters, scholarly writing etc. It pave ways for the students in writing creative books.

ENG-105: Fiction. Poetry. Grammar & Composition

- CO1 The students are acquainted with exaggerated style of fiction writing. The students learn the moral value existing in society.
- CO2 Poetry helps the students in sharpening their creativity and imaginative mind. They also teach moral value, human psychology and attachment of human being with the nature.
- CO3 Studying grammar helps the students in their grasp of English language, its construction and usage. It helps them in writing perfect sentences and their conversation.
- CO4 The students are introduced with on the spot writing of conclusive writing.

ENG-205: Short stories, Drama, Grammar & Language Skills.

- CO1 The students are acquainted with western style of narrative writing. They are also acknowledged about social and cultural impact upon the stories created by the western narrators.
- CO2 It helps the students to imbibe with fictitious narratives of western world. They are acquainted with the style of writing in old English.
- CO3 Studying grammar helps the students in their grasp of English language, its construction and usage. It helps them in writing perfect sentences and their conversation.
- CO4 The students are introduced with on the spot writing of conclusive writing.

CO5 It helps the students in their composition of proper format in writing official, commercial, scholarly writing etc.

Department of History

Programme Specific Outcomes:

- **PSO1**. To introduce students to elements of change and continuity in Indian History
- **PSO2**. To familiarize students to the trends and developments in India during the National movements
- **PSO3** To familiarize students to the major developments in the world from the decline of feudalism to the emergence of the Cold war.
- **PSO4** To introduce students to the major Developments in the North East of India
- **PSO5** To familiarize the students on the major political, economic, social and military forces that shaped the history of the USA from colonial to modern period.
- **PO6** To understand the spread of Christianity among the Nagas.

Course Outcome

HIS 101: History of India Upto the Mauryas

- CO1 Students have learnt the various sources for the reconstruction of Indian History
- **CO2** Harappan Civilization
- CO3 Vedic Civilization
- CO4 Rise of Religious Movements in India
- **CO5** The Mauryas

HIS 201: History of India Post-Maurya to Delhi Sultanate

- **CO1** Development in the Post-Mauryan times
- **CO2** Gupta Empire
- **CO3** Sangam Literature
- CO4 Bhakti and Sufi Movements
- CO Delhi Sultanate

HIS 301: History of India from 1526 to the 19th Century

- **CO1** Advent of the Mughals
- CO2 Mughal Polity, Society and Economy
- **CO3** Advent of European Powers
- **CO4** Colonial Economy
- **CO5** Social and Cultural Change

HIS 401: Indian Nationalism

- **CO1** Popular Resistance to Colonial Rule
- **CO2** Rise of Nationalism

CO3 Constitutional Development

CO4 National Movement

CO5 Toward Independence

HIS 501: History of Europe

CO1 Feudalism

CO2 Renaissance

CO3 Economic Emergence of Modern Western World

CO4 Era of Revolution

CO5 French Revolution

HIS 601: Modern World

CO1 Rise of New Imperialism

CO2 Rise of Liberalism and Nationalism

CO3 World War 1

CO4 Economic and Social Crisis in the Inter-War Years

CO5 World War 11, UNO and the Emergence of the Cold War

Department of Political Science

Programme Specific Outcomes:

PSO1: To understand the concepts and philosophical foundations of political theory and public administration.

PSO2: To understand the sources of political tradition and their relevance in contemporary times.

PSO3: To understand the working of political system in India and its administration.

PSO4: To understand the working of international organisations and issues in world politics

PSO5: To understand the politics of North East India and working of local self-government in India.

COURSE OUTCOME

P0L-101 Political Theory: Ideas & Concepts (A)

CO1:Meaning, Nature & Scope of Political Theory.

CO2: State; Meaning, Elements & Origin.

CO3:Liberty, Equality, Rights Meaning, Types, Theories.

CO4:Law, Justice, Sovereignty: Meaning, Types.

CO5: Democracy: Meaning & Dimensions.

POL 201: Political Theory: Ideas & Concepts (B)

CO1:Liberalism, Marxism, Socialism.

CO2:Power, Legitimacy & Authority.

CO3:Revolution, Political Obligation & Resistance.

CO4: Nation, Nationalism, Imperialism.

CO5:Globalisation : Meaning, Agents & Impact.

POL-301-Indian Government&Politics (A)

CO1: Making of the Indian Constitution : Basic Features.

CO2: Peamble, Fundamental Rights, Directive Principles of State Policy.

CO3:Parliament, President, Council of Ministers.

CO4: State Legislature, Governor, Chief Minister.

CO5: Judiciary: Supreme Court, High Court, Judicial Review.

POL-401- Indian Government & Politics (B)

CO1:Working of Indian Federalism: Centre-State Relations.

CO2:Ammendment Procedures.

CO3: Electoral Process, Electoral Reforms, Election Commission, Party System.

CO4: Coalition Government, Defection, Political Stability.

CO5: Issues in Indian Politics: Caste, Communalism, Regionalism.

POL-501 – Comparative Government & Politics

CO1: Meaning, Nature, Scope & Significance.

CO2: Approaches to Comparative Politics.

CO3: Functioning of Political Systems in Presidential(US), Parliamentary (UK) & Communist (CHINA).

CO4: Institutional Arrangement: Executive, Legislative, Judiciary, Political Parties & Pressure Groups.

CO5: Functioning of Political Systems in Third World Countries.

POL-601- Public Administration

CO1: Meaning, Nature, Scope & Significance.

CO2: Evolution of Public Administration, Public & Private Administration.

CO3:Principles of Organisation.

CO4:Personnel Administration: Recruitment, Training, Promotion, Role of Public Service Commission (UPSC & State Public Service Commission).

CO5: Control over Administration: Administrative, Legislative, Executive & Judicial.

Department of Sociology

Programme Specific Outcomes:

PSO1:To acquire the basic knowledge of the concepts of sociology

PSO2:To understand the social institutions and social change and its dynamics in society

PSO3:To familiarize the methods of research and its techniques use by the researchers

PSO4:To acquire the knowledge of inequality and how it exists in Indian society

PSO5:To understand the indepth social researching methods

PSO6:To acquire the knowledge of collecting datas in the field of research

PSO7:To introduce the basic ideas and theories of the pioneers of sociology

PSO8:To familiarize students with the ideas of modern sociological thinkers

PSO9:To understand the issues of the gender and gender sensitization

PSO10:It also tries to understand various issues of violence against women

PSO11:To familiarize the problems of the Indian society specially the weaker sections of the society

PSO12:To impart the role of mass media

PSO13:To understand and analyze the impact of mass media in everyday life

COURSE OUTCOME

SOC-101: Introduction to Sociology

- **CO1** Introduction of sociology as a discipline
- CO2 Relationship of sociology with other social sciences
- CO3 Important basic concepts of the society
- **CO4** Primary social institutions in the society
- CO5 The study of changes that takes place in the society

SOC-201: Social stratification and social mobility

- **CO1** Nature and bases of social stratification and social mobility
- CO2 Theories of social stratification
- CO3 Study of the four main forms of social stratification
- CO4 Types and functions of social mobility
- **CO5** Importance of social mobility

SOC-301: Foundations of sociological thought

- **CO1** August Comte Law of human progress
- CO2 Karl Marx class and class struggle
- **CO3** Emile Durkheim Theory of Suicide

SOC-401: Modern sociological theories

- CO1 Bronislaw k. Malinowski Theory of needs
- **CO2** R. K. Merton Theory of reference group
- **CO3** C. Wright Mills Theory of power elite
- **CO4** A. R. Radcliffe Brown Science and society

SOC-501: Marriage, family and Kinship

- **CO1** Rules, transactions and challenges of marriage
- **CO2** Changing trend in the family
- **CO3** Major perspectives on the family
- **CO4** Terminologies and genealogical methods in Kinship
- **CO5** Kinship systems with reference to Northeast

SOC- 601: Indian Society

- **CO1** Introduction to Indian Society
- **CO2** The different composition of Indian Society
- CO3 The major socio-economic system in Indian Society
- **CO4** Effects of Globalisation in the Indian Society.