

**TAGORE GOVT. COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF MATHEMATICS**

B.Sc MATHEMATICS

PROGRAM OUTCOME & COURSE OUTCOME

Program Outcome

The program B.Sc Mathematics is offered to the students on the factors of knowledge, understanding, skills, practices, values and achievements to be acquired by the students who undertake B.Sc mathematics. The main program outcome of B.Sc Mathematics are to prepare students so as to enable them to

- Understand different tools of Mathematics and learns how to use them to solve problems in Mathematics and related areas.
- Gain thorough knowledge about mathematical methods and able to solve specific problems in Mathematical Sciences at the advanced level.
- Acquire sufficient mathematical skills to pursue higher studies in Mathematics.
- Become familiar with a range of specific skills that can be helpful in employment and internships.
- **Course Outcome**

The expected outcome of students at the end of each course is listed below

SEM	YEAR	COURSE CODE	COURSE TITLE	COURSE OUTCOME
SEM I	1	DSC 1A	Theory of equations and Trigonometry	1.Understanding the meaning of roots of an equation.
				2. Realising the importance of determination of roots.
				3. Learning the various methods of obtaining the roots.
				4. Finding the roots of algebraic and trigonometrical equations.
		DSC 2A	Differential calculus	1. Understand the rules of Differentiation and be able to find nth derivative.
				2.Able to find maxima and minima,curvature and radius of curvature of a function.
				3.To find Partial differentiation and apply Eulers theorem for homogenous functions;
		AECC 1	Public Administration	1.To help students to obtain a suitable conceptual prepective on public administration.
				2.Gives the knowledge in Indian Constitution,All India services,training of civil servant,NitiAyog,central vigilance commission,CBI,HR COMMISSION,national Women's commission,CAG,RTI Act 2005.

EM II	I	DSC 1B	Analytical Geometry 3D	1. Learn the equation of the planes, length of the perpendicular from a given point to a given plane, explore the basic concepts of the straight lines, angle between line and a plane, shortest distance between skew lines
				2. Understand the properties of Spheres and Cones
		DSC 2B	Integral Calculus	1 Understand the meaning and basic rules of Integration
				2 Learn methods of deriving Reduction Formulae
				3 Evaluates Double and Triple Integrals
				4 Estimate Area and Volume Integrals
		AECC 2	Environmental studies	Enable to find sustainable solution to environmental problems and to preserve natural resources for future generation.
SEM III	II	DSC 1C	Abstract Algebra	1. Understand basic concepts, congruences, groups and rings.
				2. Learn the properties of mathematical structures.
				3. Perceive the statements properly and able to follow the proofs.
		DSC 2C	Real Analysis -I	The Students will have an in-depth knowledge and problem solving capacity in the following areas:
				1) Countable sets-types of Sequences and their convergence-limits of sequences
				2) Convergence of Series of real numbers using various tests
				3) Metric spaces - sequence and their convergence in metric spaces
				4) concept of continuity and uniform continuity
		SEC 1	Logic & Lattices	1. To understand Lattices as algebraic structures.
				2. To understand Homomorphisms between Lattices and Boolean Algebra.
				3. To understand Polynomials and switching circuits
SEM IV	II	BSC 1D	Linear Algebra	1. Understand algebraical concepts-Vector space, basis, dimension and their properties.
				2. Able to identify linear transformation with matrix.
				3. Realise the importance and computation of triangularization of a matrix.
				4. Evaluate canonical form of Linear transformation.
		BSC 2D	Real Analysis -II	1. To understand connectedness, completeness and compactness in Metric spaces
				2. To understand uniformly continuous functions

SEM V	III			3. To define Riemann integrals and solve improper integrals.
				4.Exposure to Elementary functions, Convergence of Taylor Series.
				5. To find the limits using L' Hospitals rule.
		SEC 2	Vector Calculus	1.The student has knowledge of central concepts in multivariable analysis, including space curves.
				2.Direction derivatives, gradient, multiple integrals, line and surface integrals,vector field;divergence,curl.
				3.The theorems of Green, Stokes' and divergence theorem.
	III	SEC 3	Programming Using Sci-lab-Practical	1 Learn basic structure of programming in Scilab
				2 Enable to write programs to solve specific problems
				3 Solves problems like matrix, ODE and polynomial operations
		DSE 1A	Complex Analysis -I	1.Represent complex numbers algebraically and geometrically.
				2.Analyse limit, continuity and differentiation of functions of complex variables, Stereographic projection.
				3.Understand C-R equations, analytic functions and various properties of analytic functions, Harmonic functions.
				4.Tranformations,bilinear transformations.
		DSE 2 A	Operations Research -I	1. To formulate linear programming model and learn the solution techniques.
				2. To understand the application of linear programming in transportation and assignment problems.
				3. To understand the basics in game theory.
		DSE 3A	Mathematical Statistics -I	1. Able to laws of probability to concrete problems.
				2. Able to use statistical inference in several circumstances and interpret the results in an applied context.
				3. Able to use a statistical software package for computations with data.
		GE 1	PROGRAMMING USING Sci-lab	1.To learn the basics of SCILAB programming.
				2.To use SCILAB for matrix and Linear Algebra operations.
				3. To write programs using If statement, for and While statement and functions.

				4.To write programs using SCILAB to solve system of equations, ODE and 2D plot.
SEM VI	III	SEC 4	Programming LAB IN Numerical methods-practical	1 Experience hands on training in solving problems using Scilab
				2 Enable to write programs to solve Numerical problems
				3 Determine Numerical solution to Algebraic and differential equations
		DSE 1B	Complex Analysis - II	1.Understand Cauchy theorem, Cauchy-Goursat theorem and Cauchy integral formula and these to evaluate complex contour integrals.
				2.Fundamental theorem on algebra. Represent functions as Taylor and Laurent series
				3.Classify singularities and poles.
				4.Find residues and evaluate complex integrals using Residue theorem.
				5.They can identify the difference between the Real and Complex analysis.
		DSE 2B	Operations Research -II	1.To formulate and solve problems as networks and graphs.
				2.To use CPM and PERT techniques.
				3.To understand queueing theory and learn the basic models.
				4.To understand inventory control and solve basic problems.
		DSE 3B	Mathematical Statistics -II	1.Reject the null hypothesis H_0 ,in which case ,we have evidence in support of the alternative hypothesis H_1 .
				2.Not reject the null hypothesis H_0 ,in which case we do not have enough evidence to support alternative hypothesis H_1 .
		GE 2	Numerical Methods	1.To understand Numerical method concept and techniques .
				2.To apply numerical techniques to solve system of equations, definite integrals, Interpolation and D.E.
				3.To write SCILAB programs to solve system of equations, definite integrals, Interpolation and D.E

B.Sc., Physics

Programme and Course Outcomes

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Programme Outcome

PO1: As Physics is the study of matter and energy, students will acquire knowledge in properties of matter and various forms of energy - and its utilisation for the society.

PO2: As Physics is the science of measurements, students will gain experimental and computational skills.

PO3: Get qualified to join post graduate studies.

PO4: Educate the people around them in health, road safety and environmental issues.

PO5: Encounter the situations in life with open mind, scientific temper and rational thoughts.

PO6: Become source of radiation for knowledge and wisdom in the society they live.

PO7: Improve the quality of life of their family and surroundings.

Course Outcome

1. Mechanics of Particles, Rigid bodies and Continuous media

CO1: Acquire knowledge in Dynamics and properties of matter.

CO2: Improve mathematical skills to solve physics problems.

CO3: Apply the concept of moment of Inertia, gravitational potential to various cases.

CO4: Analyse the properties of matter like viscosities, surface tension and its usage in day today life.

CO5: Understand the importance of Bernoulli's theorem in the blood flow in human body.

2. Kinetic theory and Thermodynamics

CO1: Study various thermodynamic processes like isothermal, isobaric, isochoric processes and laws of thermodynamics.

CO2: Learn the concept of Entropy.

CO3: Acquire knowledge about Carnot's cycle, Joule- Thompson Effect and Clausius - Clapeyron equation.

CO4: Understand the principle of thermodynamic probability and apply it to Maxwell-Boltzmann, Fermi- Dirac and Bose- Einstein distribution laws.

3. Oscillations, waves and acoustics

CO1: Acquire knowledge in harmonic motion, Fourier series, acoustical aspects and musical notes.

CO2: Analyse the superposition of harmonic waves.

CO3: Apply Fourier series to saw-tooth wave and square wave etc.

CO4: Understand the acoustic aspects of buildings and walls.

4. Optics

CO1: Understand the significance of matrix methods in paraxial optics.

CO2: Gain in depth knowledge about aberrations produced by lenses.

CO3: Usage of interferometer, types of diffraction and resolving power concepts improve their understanding levels in interference and diffraction.

CO4: Gain knowledge about circular and elliptical polarization of light.

5. Electricity and Magnetism

- CO1. Acquire knowledge about Fundamental laws and concepts in Electricity and Magnetism.
- CO2. Apply standard mathematical tools to solve problems in Electricity and Magnetism.
- CO3. Understand Maxwell's Equations and apply it to propagation of Electromagnetic waves.
- CO4. Gain knowledge on the concepts of magnetostatics, magnetic flux density, scalar and vector potential and its applications.

6. Modern Physics and Relativity

- CO1: Study dual nature of matter with experimental evidence.
- CO2: Apply Schrodinger equations to one dimensional problem.
- CO3: Analyze the unique aspects of special theory of relativity.

7. Quantum Mechanics

- CO1: Understand time-dependent and time-independent Schrodinger wave equations.
- CO2: Analyses the Eigen Values and Eigen functions and gain knowledge about operators.
- CO3: Apply the principles of Quantum Mechanics for a free particle.
- CO4: Apply quantum theory to Hydrogen like atoms in a spherical polar co-ordinates.

8. Electronics

- CO1. Understand the unique properties of semiconductors
- CO2. Apply the h- Parameter model to semiconductors
- CO3. Analyse the working and applications of various types of diodes.
- CO4. Understand the working of transistors in various modes.
- CO5. Use the transistors to construct and study the amplifiers, Oscillators etc.

9. Solid State Physics

- CO1: Understand the determination of crystal structure by diffraction of X-rays.
- CO2: Understand the nature of bonding in solids and lattice vibrations.
- CO3: Acquire knowledge about electrical conduction in solids.
- CO4: Apply magnetic properties of solids to superconductivity.

10. Atomic and Molecular Spectroscopy

- CO1: Learn the concepts of coupling schemes, spectral terms and selection rules.
- CO2: Analyze the X-ray spectra and understand the characteristics of X-rays.
- CO3: Understand normal and Anomalous Zeeman effects with reference to Sodium D-lines.
- CO4: Understand the formation of molecular orbital's in H_2 ion and also brief review on MO theory of H_2 molecule.
- CO5: Learn different types of lasers like He-Ne laser, Dye laser and Ruby laser. *Sumit*

11.Digital Electronics

- CO1.Understand the concepts and techniques used in digital electronics.
- CO2.Examine the structure of various number systems and its application in digital design.
- CO3.Acquire ability to analyze and design various combinational and sequential circuits.
- CO4.Analyze different types of digital electronic circuits using various mapping and logical tools.
- CO5.Develop skill to build and troubleshoot digital circuits.
- CO6.Understand the basics of Intel 8085 microprocessor and able to write assembly language program for 8085 processor.

12.Astrophysics

- CO1: Acquire knowledge about Solar system, Stars, Galaxies and Universe.
- CO2: Understand the various theories of Universe like Big bang theory.
- CO3: Analyze the bio-Astronomy and extra terrestrial civilization.
- CO4: Understand the fundamentals of satellite communication.
- CO5: Analyse - various layers of the Sun and understand the mechanism of energy production in the Sun .
- CO6.Understand the use of Astronomical Telescopes to observe the sky and the stars

13.Numerical Methods and Computational Physics

- CO1: Apply the least square and approximation methods for analyzing experimental data.
- CO2: Acquire knowledge about interpolation and matrix methods.
- CO3:Develop Programming skills with FORTRAN.
- CO4: Apply the computer resources in physics.

14.Nuclear Physics

- CO1: Acquire knowledge about properties of nucleus.
- CO2: Learning different types of nuclear models.
- CO3: Analyze radioactive decay and nuclear reactions.
- CO4: Understand elementary particles and their properties.

15.Renewable Energy

- CO1: Understand the difference between the renewable and non- renewable energy.
- CO2: Acquire knowledge about renewable energy sources.
- CO3: Apply the circuit theory to photovoltaic systems.
- CO4: Analyze the production of Wind energy, Gravitational energy and Ocean energy.


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CO5: Learn the importance of sustainable energy sources.

CO6: Analyse the future of batteries and power consumption.

16.Communication Electronics

CO1. Understand various fundamental aspects of the communication systems.

CO2. Understand various modulation & demodulation techniques used in communication systems.

CO3. Interpret various radio transmitter & receiver circuits and different types of noise in communication systems.

CO4. Analyze various parameters such as modulation index, channel capacity, transmission efficiency, S/N ratio etc. used in communication systems.

CO5. Apply various methods used in communication systems for generation & reception of modulated & demodulated signals.

Physics Laboratory – I to VIII

CO1. Understand the laws of Physics by carrying out Laboratory experiments individually.

CO2. Identify possible sources of error and employ techniques to improve accuracy.

CO3. Develop analytical reasoning ability and can interpret experimental data.

CO4. Learn teamwork by working in groups in Laboratory.

CO5. Can apply the acquired knowledge and skills to real time situations.

Allied: Mathematics-I

CO1: Understand the concept Rank, solve the system of linear equations using rank and find the characteristic equations, eigen values and corresponding eigen vectors.

CO2: Understand the Demoivre's theorem and find the series representation for trigonometric functions.

CO3: Identify vector point function, scalar point function and calculate the vector differentiation.

CO4: Analyse limit, continuity and differentiation of complex variables. Understand C.R. equations, analytic functions and Harmonic functions.

CO5: Find the angle between 2 curves in polar co-ordinates. Understand the subtangent and subnormal.

Allied: Mathematics-II

CO1: Understand the definite integral and its properties. Find the reduction formula and Bernoulli's formula.

CO2: Identify odd and even functions. Understand periodic functions. Calculate Fourier series and half range Fourier series.

CO3: Calculate line, surface and volume integrals, using Stoke's theorem and Gauss- Divergence theorem.

CO4: Grasp the concept of a general solution of first order ordinary differential equation but not of first degree and solve the linear ODE with constant coefficients.


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Department of Chemistry

Objectives and Learning Outcomes of

B.Sc. Chemistry Degree Program

INTRODUCTION:

The CBCS Course curriculum of our B.Sc. Chemistry program is well designed and very promising. The core course would help to enrich the subject knowledge of the students and increase their confidence level in the field of both academia and industry. The introduction of Skill Enhancement Courses (SEC) would help to gain more powerful knowledge not only in their core Chemistry subject but also in interrelated multidisciplinary subjects both theoretically and practically. The inclusion of Discipline Specific Courses (DSE) has brought an opportunity in front of students to gain knowledge on various naturally and industrially important useful materials. Generic electives make integration among various interdisciplinary courses to fulfill the vision and mission of designing the course.

OBJECTIVE OF THE PROGRAM:

Get the students

- To study the laws of chemistry that controls various transformations.
- To understand matter and its behavior.
- To know about the scientific methods and gain skills in innovation, critical thinking, deductive reasoning, problem-solving and communication.
- To develop a wide variety of useful materials, such as medicines for the treatment of diseases, materials that can be used as sources of alternative energy, materials that protect the environment and structures that are advanced in building technology.
- To increase student interest in STEM careers.
- To develop careers in: medicine, environmental science, engineering, toxicology, developing consumer products, metallurgy (studying how metals behave), space exploration, developing perfumes and cosmetics, pharmaceuticals, energy, teaching, science writing, software development and research.

LEARNING OUTCOME OF THE PROGRAM:

Upon successful completion of the program students

- ❖ Gain the theoretical as well as practical knowledge of handling chemicals.
- ❖ Acquire a broad foundation in chemistry that stresses scientific reasoning and analytical problem solving with a molecular perspective.
- ❖ Understand the importance of the elements in the periodic table including their physical and chemical nature and role in the daily life.
- ❖ Understand the concept of chemistry to inter relate and interact to the other subject like mathematics, physics, biological science etc.
- ❖ Achieve the skills required to succeed in graduate school, professional school and their careers in chemical industries like cement industries, agro product, paint industries, rubber industries, petrochemical industries, food processing industries, fertilizer industries etc.
- ❖ Gets exposure to a breadth of experimental techniques using modern instrumentation.
- ❖ Learn the laboratory skills and safely to transfer and interpret knowledge entirely in the working environment.
- ❖ In brief the student graduated with our curriculum would be able to disseminate subject knowledge along with necessary skills to suffice their capabilities for academia, entrepreneurship and industry.


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B.Sc. chemistry Program

Objectives and Learning Outcomes of Courses Offered

SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
First Semester	DSC – IA	UCHM 111	GENERAL CHEMISTRY – I	4	100

Course Objective:

- To make the students to understand the basic concepts on the topics atomic structure, quantum mechanics, Chemical bonding, molecular structure, Stereo chemistry and Gaseous state.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Review the Atomic Structure and basic ideas of Quantum mechanics including Schrödinger equation for hydrogen atom.
- ❖ Understand the concept of Chemical Bonding and Molecular Structure with VB and MO approach
- ❖ Learn the Fundamentals of Organic Chemistry including the concept of acids & bases, aromaticity and types of reactions.
- ❖ Acquire the knowledge on Conformations and Configuration: Geometrical and optical isomerism, CIP Rules: R/ S and E / Z Nomenclature.
- ❖ Know about the kinetic molecular model and behaviour the both ideal and real gases.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
First Semester	DSC – 3A	UCHM 116	GENERAL CHEMISTRY PRACTICAL-I	2	50

Course Objective:

- To get the practical knowledge on Volumetric Analysis & Chromatography.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the practical skills in the preparation of solutions of various normality and molarity.
- ❖ Analyse the unknown normality of the given solution using volumetric principle for permanganometry, dichrometry and iodometry.
- ❖ Perform the paper and thin layer chromatography techniques to separate the mixture of aminoacids and sugars using R_f calculation


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
First Semester	AECC-1	PADM 111	INTRODUCTION TO PUBLIC ADMINISTRATION	2	50

Course Objective:

- To get students empowered with basic need of ethical seriousness in contemporary Indian Public Administration within the constitutional framework.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Learn about the basic concepts in Public Administration.
- ❖ Learn All India Services and all India Commission in various fields.
- ❖ Differentiate between the State and Union Territory Administration
- ❖ Understand the emerging issues in Public Administration.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Second Semester	DSC – IB	UCHM 121	GENERAL CHEMISTRY – II	4	100

Course Objective:

- To make the students to understand the concepts on the topics Chemical Thermodynamics, Chemical Equilibrium, Ionic Equilibria, Hydrogen, Hydrides, S-block elements, Aliphatic Hydrocarbons and Aromatic Hydrocarbons.

Course Learning Outcome:

Upon successful completion, students will be able to:

- ❖ Understand the concept of energy exchange in various thermodynamical processes.
- ❖ Gain the concept of free energy, equilibrium constants and their inter-relationship, different types of electrolytes, ionization constant, pH scale, buffer solution salt hydrolysis, and solubility product
- ❖ Learn about different types of hydrogens, hydrides and hydrogen bonding, Alkali and Alkaline earth metals.
- ❖ Acquire the knowledge on alkanes, alkenes, and alkynes
- ❖ Gain the knowledge on preparation and properties of benzene and effect of various substituents.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Second Semester	DSC – 3B	UCHM 126	GENERAL CHEMISTRY PRACTICAL- II	2	50

Course Objective:

- To get the practical knowledge on Determination of molecular mass, distribution coefficient and application of thermometric methods.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the practical skills in the determination of molecular mass by Rast method.
- ❖ Determine the transition temperature by thermometric method.
- ❖ Analyse distribution coefficient of I_2 and water.
- ❖ Determine critical solution temperature of phenol-water system.
- ❖ Know the effect of added electrolyte on miscibility temperature of phenol-water system.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Second Semester	AECC-2	ENVS 121	Environmental Studies	2	50

Objectives :

- The main Objective in this paper is to study the various environmental factors which help the environment and the various pollutants which affects the environment.

Learning Outcomes:

Upon successful completion students will be able to;

- ❖ Understand the scope and importance of environment.
- ❖ Know the various ecosystems with their functions.
- ❖ Learn about the renewable and non renewable sources which are available from natural sources.
- ❖ Understand the levels of Biodiversity and conservation and also the threats of Biodiversity.
- ❖ Learn the various types of pollution and also how to control the various types of pollution.
- ❖ Learn the various environmental policies and practices.
- ❖ Know about the Human communities and the environment communication and public awareness.
- ❖ Students used to go to field visit and the field visit helps to understand the various environment problems faced by the public.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Third Semester	DSC-IC	UCHM 231	PHYSICAL CHEMISTRY – I	4	100

Course Objective:

- To make the students to understand the basic concepts on the topics Solid State Chemistry, Chemical Kinetics, Catalysis, Photo Chemistry, Adsorption, Colligative Properties & Phase Equilibrium.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Understand the basics of Solid State Chemistry and basic ideas of Laws of crystallography, Bragg's equation Laue's method and powder method.
- ❖ Understand the concept of Rate of Reaction, Order of Reaction, Methods of determining the Order of the Reaction, Collision theory and Transition state theory
- ❖ Learn the Fundamentals of Types of Catalysis, Adsorption, Photo Physical Processes
- ❖ Understand the application of Colligative Properties in determining the Molecular Weight of the Organic Samples
- ❖ Know about the Phase Rule, Study of Phase Diagrams of Various Systems, Nernst distribution law-thermodynamic derivations and applications.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Third Semester	DSC-2C	UCHM 232	INORGANIC CHEMISTRY-I	4	100

Course Objective:

Theory:

- Students to get the theoretical knowledge about Nuclear Chemistry, Qualitative Inorganic Analysis, Theories of Acids, Bases & Non-aqueous solvents and p-Block Elements.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Gain the knowledge about Nuclear forces, Various nuclear models and nuclear reactions, Radioactivity, Applications of isotopes in analytical chemistry, medicine, and in reaction mechanism.
- ❖ Acquire knowledge about solubility, solubility product and its applications in qualitative and quantitative analysis, Semi-microanalysis and Techniques of separation and purification of mixtures.
- ❖ Gain the knowledge about different theories of acids and bases, Hard and soft acids & bases and Non-aqueous solvents.
- ❖ Acquire knowledge about general characteristic, preparation and properties of boron family members, carbon family members and nitrogen family members.
- ❖ Acquire knowledge about general characteristic, preparation and properties of oxygen family members, halogen family members and noble gases.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Third Semester	DSC-4C	UCHM 236	PHYSICAL AND INORGANIC CHEMISTRY PRACTICAL	2	50

Course Objective:

- To get the practical knowledge on Surface tension and Viscosity measurements & Systematic semi-micro qualitative analysis of Inorganic mixtures.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the practical skills determining the Surface tension and Viscosity of Organic Samples
- ❖ Analyse the Cations and Anions present in the given Inorganic Mixture by following experimental procedure.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Third Semester	SEC-I	UCHM 235	BASIC ANALYTICAL CHEMISTRY	2	50

Course Objective:

Theory:

- To get a detailed knowledge about Laboratory Glassware, Laboratory First-aids, Stoichiometric equation, Concentration systems, Principles of Titrimetric (Volumetric) Analysis and Statistical Evaluation of Analytical Data.

Practical:

- Students to learn the method of calibration of certain glass wares, calculation of normality of unknown solution and Statistical calculation.

Course Learning Outcome:

Upon successful completion students will be able to:

Theory:

- ❖ Calibrate the burette, pipette and standard flask and also learn to clean & maintain the lab glasswares with a knowledge on Laboratory first aids.
- ❖ Understand mole concept, concentration units and parts per notation with calculations.
- ❖ Learn the detailed account on volumetric analysis of Acid-base, redox, complexometric and precipitation titration.
- ❖ Perform various types of statistical calculations: Significant figures, tabulation of data, rejection of data, Q-test, errors, least -square method.

Practical:

- ❖ Acquire the practical knowledge on calibration of glasswares, preparation of normal solutions and how to reject the data, to calculate the errors and statistical parameters.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fourth Semester	DSC-1D	UCHM 241	PHYSICAL CHEMISTRY-II	4	100

Course Objective:

- To Study the Electrochemistry, Elementary Quantum Mechanics, molecular spectroscopic methods: microwave, IR, Raman and electronic spectroscopy, physical properties and molecular structure

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Understand conduction in metals and in electrolyte solutions, Kohlrausch law; Ostwald dilution law, Debye-Huckel-Onsager Equation, Transport number, determination by Hittorf method and moving boundary method; determination of degree of dissociation; conductometric titrations.
- ❖ Know about the types of Standard Electrodes, Measuring the EMF of Electrochemical Cell, Potentiometric Titration applications, Buffer Solutions
- ❖ Understand the evolution of Quantum mechanics, Schrodinger wave equation and its significance; physical interpretation of wave function; postulates of quantum mechanics; particle in one dimensional box.
- ❖ Learn the Fundamentals of Microwave Spectroscopy, Infrared Spectroscopy and its applications
- ❖ Learn the Fundamentals of Raman Spectroscopy and Electronic Spectroscopy and its applications, Concept of Polarization, Methods of determination of Dipole Moment


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fourth Semester	DSC-2D	UCHM 242	ORGANIC CHEMISTRY – I	4	100

Course Objective:

- The students can develop basic concepts about the Alkyl and Aryl Halides, the Alcohols and Phenols, Carbonyl Compounds, Organic Compounds of Nitrogen, Heterocyclics

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Learn the preparations, properties, structures of Alkyl Halides, Aryl halides & understand the reactivity and relative strength of Carbon-Halogen bond in alkyl, allyl, benzyl, vinyl and aryl halides
- ❖ Learn the preparations, properties of Alcohols and Phenols
- ❖ Get the complete details of Preparation and Properties of Aldehydes and ketones, Carboxylic acids & their derivatives
- ❖ Learn the preparations, properties of Nitro compounds, To get details of reduction of nitrobenzene under various conditions, Amines Classification, preparation and Properties and Reactions involved by Amines, Diazonium Salts
- ❖ Understand aromatic characteristics of pyrrole, furan, thiophene and pyridine, mechanism of electrophilic substitution, nucleophilic substitution reactions in Pyridine derivatives, basicity of pyridine, piperidine and pyrrole. Preparation and reactions of indole, quinoline and isoquinoline


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fourth Semester	DSC- 4D	UCHM 246	PHYSICAL AND ORGANIC CHEMISTRY PRACTICAL	2	50

Course Objective:

- To get the practical knowledge on kinetics of Chemical Reactions, Standard Electrode Potential, pH like physical quantities, separation of Organic Compounds from their mixture.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the practical skills of determining the Rate Constant, Equilibrium Constant, Standard Electrode Potential, PH, solubility and solubility product using e.m.f measurement, Determination of Concentration of samples by Spectrophotometry.
- ❖ Separate organic compounds from their mixture based on their solubility in different Polar and nonpolar solvents


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fourth Semester	SEC-2	UCHM 247	BUSINESS SKILLS FOR CHEMISTS	2	50

Objectives:

- The Main objective of this paper is to study the various business skills and concepts in order to earn money with proper business set up.

Learning Outcomes:

Upon successful completion students will be able to:

- ❖ Acquire chemical knowledge in Business skills.
- ❖ Understand the various types of skills required to improve a business.
- ❖ Learn the basic concepts like Business plan, market need and various routes to market with proper management.
- ❖ Understand the financial aspects of business with various case studies.
- ❖ Know about the conceptual property and financial aspects.



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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fifth Semester	DSC - 1E	UCHM 351	INORGANIC CHEMISTRY-II	3	100

Course Objective:

- To get students empowered with basic to advance knowledge of some important topics in inorganic chemistry like d-block elements, f-block elements and coordination compounds.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Understand the basic facts and concepts of the chemistry of First transition series elements in the d-block, their extraction, properties and uses.
- ❖ Learn the general characteristics of Second and third transition series elements and comparative treatment with their 3d analogues.
- ❖ Understand the position of lanthanides and actinides in the periodic table and learn their extraction, properties, reactions and applications.
- ❖ Know the basics of Coordination compounds including the basic theories, naming, isomerism and applications of Co-ordination compounds in chemical analysis, medicine and industry.
- ❖ Get an insight into the modern theories of coordination compounds like VBT, CFT, MOT, ACFT, and LFT. Types of magnetic behaviour and its determination are also learnt.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fifth Semester	DSE – 1A	UCHM 353	ANALYTICAL METHODS IN CHEMISTRY	4	75

Course Objective:

- To get students familiar with basic knowledge of some important methods in analytical chemistry like gravimetry, colorimetry, polarography, chromatography, radiochemical, solvent extraction and thermo analytical methods.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Know the basic principles of gravimetric analysis and the conditions involved along with calculations.
- ❖ Learn the quantitative aspects of absorption of radiation, Beer-Lambert's Law and the methods of doing colorimetry. Types of colorimeter, instrumentation and applications are also learnt.
- ❖ Study the properties of radioisotopes and methods of radiochemical analysis, applications and their limitations. Thermo analytical methods like TGA, DTA and thermometric titration are also learnt in detail with examples.
- ❖ Understand the basic principles of polarography, experimental determination and applications in quantitative and qualitative analysis. The principles and techniques of solvent extraction, factors involved and applications with example are also learnt.
- ❖ Get an insight into the theory and classification of chromatographic methods with a detailed knowledge about the principle, instrumentation and application of some important chromatographic methods like column, TLC, paper and GLC.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fifth Semester	DSE – 1A	UCHM 353	ANALYTICAL METHODS IN CHEMISTRY PRACTICAL	1	25

Course Objective:

- To get the practical knowledge on different techniques of analytical methods in chemistry like chromatography, solvent extraction and colorimetry .

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Get practical knowledge and skills in the separation, identification and quantitative determination of components in a mixture using chromatographic techniques.
- ❖ Separate components in a mixture using solvent extraction technique.
- ❖ Determine pKa value of an indicator using colorimetric technique and also the composition of complexes using Job's method.
- ❖ Determination of Mn in the given sample by colorimetry is also learnt.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fifth Semester	DSE-2A	UCHM 354	NANO CHEMISTRY	4 + 1	75 + 25

Theory:

Course Objective:

- To impart the knowledge on basics of nanotechnology and nano chemistry, Different types of nano particles and their synthesis, Preparation, properties and applications of some nano materials and nano-architecture, Instrumental techniques used in characterization of nano materials, Carbon nanostructures and their applications

Course Learning Outcome: Upon successful completion students will be able to:

- ❖ Learn the importance of nanoscale and its technology, Classification of nano materials (0D, 1D and 2D), self assembly of materials and self-assembled nanostructures.
- ❖ Acquire the knowledge about different types of nanoparticles and their synthesis using various methods.
- ❖ Gain the knowledge about Classification of nanomaterials, Properties and applications of nano materials, Toxic effects of nanomaterials, and nano-architecture.
- ❖ Learn characterization of nanomaterials by different microscopic techniques such as SEM, TEM, AFM and STEM.
- ❖ Gain the knowledge about Synthesis and purification of carbon nano tubes and applications of nano materials in electronics, optics, catalysis, computers, sensors, transportation, medicine and in environment related issues.

Practical:

Course Objective:

- To get the practical knowledge on various methods to prepare nanomaterials.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the practical skills in the synthesis of silver nano particles.
- ❖ Gain the practical skills on synthesis of metal oxide such as NiO, ZnO, Fe₂O₃, Co₃O₄.

SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fifth Semester	DSC – 2E	UCHM 350	INORGANIC CHEMISTRY PRACTICAL - II	2	50

Course Objective:

- To get the practical knowledge on an important quantitative analytical technique in inorganic chemistry, namely Gravimetric Analysis.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Understand fully the principle and technique involved in the quantitative analysis by gravimetry.
- ❖ Get practical knowledge and skills involved in gravimetric analysis.
- ❖ Analyse the given sample and determine using silica crucible.
- ❖ Determine substances by gravimetric analysis using sintered glass crucible.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fifth Semester	SEC-3	UCHM 358	GREEN METHODS IN CHEMISTRY	2	50

Course Objective:

- **Theory:** To impart the knowledge on basic principles of Green Chemistry, minimization of waste, inherently safer designing of green processes, in-process monitoring, process intensification, green synthesis of some chemicals and agricultural products.
- **Practicals:** To get the practice of efficient green synthesis of certain simple organic compounds in real cases, isomers of some organic compounds and plastics with recycling processes without Pollution.

Course Learning Outcome: Upon successful completion students will be able to:

Theory:

- ❖ Acquire the knowledge of Prevention hierarchy by reducing pollution at its source and 12 principles of Green chemistry
- ❖ Reduce or eliminate the use of toxic chemicals/waste, Minimization and prevention of waste, Design for degradation and polymer recycling.
- ❖ Understand green methods adopted in industries like types of reactors, inherently safer design and in- process monitoring
- ❖ Ensure the knowledge in the case studies on the green synthesis of Acetic acid, Vitamin C, Leather manufacture, Polythene and Eco-friendly Pesticides-Insecticides.
- ❖ Aware of the chemical disruption of ecosystem and lower the usage of hazardous landfills. To lower the potential of global warming, ozone depletion and smog formation.

Practicals:

- ❖ Get the experimental or practical knowledge of Green synthesis of some familiar named reactions and condensation reactions.
- ❖ Acquire the skills of green methods to compost or recycle the plastics.
- ❖ Understand the procedure to replace the pollution free solvents for the chemical reactions.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Sixth Semester	DSC – IF	UCHM 361	ORGANIC CHEMISTRY – II	3	100

Course Objective:

- The students can develop basic concepts and in the advanced level understanding in Molecular Rearrangements , Natural Products , Carbohydrates, Aminoacids, Peptides, Proteins and Nucleic acids
- To study the Applications of Spectroscopy to Simple Organic Molecules.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the knowledge on Inter & Intra molecular Mechanisms, evidences, migratory aptitude of some molecular rearrangements.
- ❖ Learn the classification, rules, general methods to elucidate the structure of alkaloids and terpenoids. Biological significance of steroids & marine products
- ❖ Get the complete details of carbohydrates: aldoses, ketoses, conversions, structure, properties of mono, di and poly saccharides.
- ❖ Learn the preparations, properties, structures, end group analysis of Amino acids, proteins and nucleic acids.
- ❖ Understand the basic concepts of spectroscopy (UV,IR & NMR) and to determine the molecular structure of some simple organic compounds


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Sixth Semester	DSE-1B	UCHM 362	ANALYTICAL CHEMISTRY	4	75

Course Objective:

- To learn the principle, instrumentation, application, advantages and disadvantages of AAS and FES techniques. Also to learn in detail the principle, instrumentation and application of some important spectroscopic techniques like UV-Vis., IR, Mass, and NMR.

Course Learning Outcome:

Upon successful completion of the course, students:

- ❖ Understand the principle and technique involved in the qualitative and quantitative analysis by AAS and FES, their applications, differences, advantages and disadvantages.
- ❖ Get theoretical knowledge of interaction of radiation with matter, fundamental laws of spectroscopy and selection rules.
- ❖ Know the theory and basic principles of instrumentation of UV-Vis. Spectroscopy, application in quantitative analysis.
- ❖ Know the fundamentals of the IR spectroscopy, selection rules, functional group and finger print region and interpretation of the spectra of some important functional groups and their derivatives.
- ❖ Understand the instrumentation of IR spectroscopy for single and double beam instruments, application and advantages.
- ❖ Know the basic principle of Mass spectroscopy, instrumentation, rules, identification of important functional groups and determination of molecular formula.
- ❖ Learn to interpret mass spectra of some simple organic compounds and Mc-Lefferty rearrangement.
- ❖ Understand the principle of NMR spectroscopy, basic instrumentation, chemical shift and other principles and factors in order to interpret some simple organic compounds


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Sixth Semester	DSE-1B	UCHM 362	ANALYTICAL CHEMISTRY PRACTICAL	1	25

Course Objective:

- To get a practical knowledge on the important analytical spectroscopic techniques in chemistry, namely UV-Vis., Colorimetry, AAS, FES, IR, NMR and Mass spectroscopic analyses.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Understand fully the principle and technique involved in the quantitative analysis by UV-Visible spectroscopy and its application.
- ❖ Get practical knowledge and skills involved in colorimetry.
- ❖ Analyse the given sample using AAS and FES.
- ❖ Identify organic compounds by interpreting their IR spectrum, mass spectrum and nmr spectrum.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Sixth Semester	DSE-2B	UCHM 365	INDUSTRIAL CHEMICALS AND ENVIRONMENT	4	75

Course Objective:

- To learn about industrial gases and inorganic chemicals in the context of different types of pollution, namely, air pollution, water pollution, noise pollution, radioactive pollution, nuclear pollution and understand our environment and the ways of protecting it along with a preliminary study about different sources of energy, their production and usage.

Course Learning Outcome:

Upon successful completion of the course, students:

- ❖ Know about large scale production and storage of hazardous chemicals.
- ❖ Study in details the hazards involved in handling some important hazardous chemicals.
- ❖ Understand the types of air pollution, their effects, Greenhouse effect, global warming, ozone depletion etc. and study the control of pollution.
- ❖ Study about hydrological cycle, water resources, aquatic ecosystems and impacts of water pollution.
- ❖ Learn industrial waste management, effluent treatment plants, and sludge disposal from various types of industries.
- ❖ Know about sound and its general features, human acoustics, classification and effect of noise and control of industrial noise pollution.
- ❖ Learn definitions of radioactive pollution and its units, and sources of radiation and their somatic and genetic effects.
- ❖ Understand Ecosystems, different sources of energy and nuclear pollution along with nuclear disaster and its management.
- ❖ Get an introduction to biocatalysis, their importance in green chemistry with examples.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Sixth Semester	DSE-2B	UCHM 365	INDUSTRIAL CHEMICALS AND ENVIRONMENT PRACTICAL	1	25

Course Objective:

- To study some of the common bio-indicators of pollution and acquire the skill to analyse industrially important substances in the laboratory.

Course Learning Outcome:

Upon successful completion students will be able to;

- ❖ Analyse dissolved CO₂, dissolved O₂, acetic acid, alkali content, copper, COD, BOD, hardness of water.
- ❖ Determine Mn content in Pyrolusite.
- ❖ Measurement of chloride, sulphate and salinity of water samples by simple titration method.
- ❖ Estimate total alkalinity of water samples
- ❖ Synthesise Chalcone by green chemical method.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Sixth Semester	DSC – 2F	UCHM 360	ORGANIC CHEMISTRY PRACTICAL- II	2	50

Course Objective:

- To get the practical knowledge on organic qualitative analysis & organic preparation.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the practical skills and to analyse the organic compounds qualitatively: saturation/unsaturation, aromatic/aliphatic, presence of elements, functional group and conformation by preparation of derivatives.
- ❖ Know the laboratory synthesis of certain organic compounds by benzylation, nitration, oxidation, acetylation and halogenation followed by recrystallization.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Sixth Semester	SEC-4	UCHM 368	FUEL CHEMISTRY	2	50

Course Objective:

- **Theory:** To impart a basic knowledge about Fuel Chemistry, different energy sources, petroleum and petrochemical industry and lubricants.
- **Practicals:** To learn the technique of fractional distillation, its principle and process.

Course Learning Outcome: Upon successful completion students will be able to:

Theory:

- ❖ Review energy sources, their classification, types of fuels and calorific value.
- ❖ Learn the types, composition and uses of coal.
- ❖ Understand carbonization of coal and the composition and uses of coal gas, producer gas and water gas.
- ❖ Know about fractionation of coal tar, uses of coal tar based chemicals, coal gasification, liquefaction and solvent refining.
- ❖ Know composition and refining of petroleum and also about petro products and their applications.
- ❖ Learn about cracking of petroleum, petroleum and non-petroleum fuels, synthetic fuels, clean fuels and petrochemicals.
- ❖ Know the classification of lubricants, lubricating oils, their properties and their determination.

Practicals:

- ❖ Learn the technique of fractional distillation, its principle and process.


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TAGORE GOVT. ARTS & SCIENCE COLLEGE, PUDUCHERRY

Department of Chemistry

Objectives and Learning Outcomes of

Allied Chemistry Courses for B.Sc. Degree Programs

The CBCS curriculum of our B.Sc. Allied Chemistry course is designed to suit to the needs of all UG science students with physical science as well as biological science major, which they study during their third and fourth semesters. The course would help to compliment to the theoretical knowledge and practical skill of the students in their respective major programs.

B.Sc. Allied chemistry

Objectives and Learning Outcomes of Courses Offered

SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Third Semester	DSC – 1A	UCHEM A01	ALLIED CHEMISTRY – I	3	75


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Course Objective:

- To Study the classification, nomenclature and some fundamentals of organic chemistry, isomerism in organic compounds and conformational analysis, stoichiometry, basic concepts of chemical equilibrium radioactivity and its applications, carbohydrates

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Learn the nomenclature of organic compounds, hybridization, Aromaticity, Hydrogen bonding, Dipole moments in organic molecules.
- ❖ Know the types of bond cleavages and reaction intermediates.
- ❖ Understand Geometrical & Optical isomerism in organic compounds- optical Isomers, R, S configuration, conformational analysis of ethane, n-butane and cyclohexane molecules.
- ❖ Get basic knowledge of the terms in stoichiometry, types of solutions, stoichiometric calculations, and concepts of chemical equilibrium, acids and bases. pH of acids and bases. Henderson's equation of buffer.
- ❖ Understand the properties of α , β and γ -radiations, rate of disintegration, half life period, nuclear fission and fusion, radioactive isotopes, Applications of Radio Isotopes, Nuclear reactors, Neutron activation analysis.
- ❖ Learn the classification, preparation, properties and structure of carbohydrates.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Third Semester	DSC- 2A	UCHEM A02	ALLIED CHEMISTRY PRACTICAL – I	1	25

Course Objective:

- To get the practical knowledge on determination of Concentration of the Unknown solution using Volumetric Analysis method and Separation of mixture of Organic Compounds.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Get the practical skills determining the concentration of the unknown solution by using Volumetric Analysis method.
- ❖ Determine the melting point and viscosity of samples, and also
- ❖ Learn the purification of organic samples by recrystallisation & paper chromatographic techniques.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fourth Semester	DSC – 3A	UCHEM A03	ALLIED CHEMISTRY – II	3	75

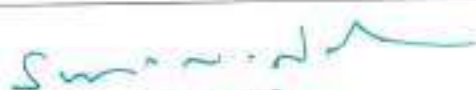
Course Objective:

- To study thermodynamics and chemical kinetics, basic techniques in chromatography, fundamental topics in solid state, structure & properties of amino acids, proteins and enzymes, and also to learn the applications of advanced materials like polymers and dyes, structure of nucleic acids and drugs.

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Understand the importance and applications of First Law of Thermodynamics and Second Law of Thermodynamics, Order of Reaction in Chemical Kinetics.
- ❖ Learn various separation techniques in Chromatography, understand the theory of adsorption, applications of Crystal Defects in solid state chemistry.
- ❖ Get basic knowledge of the types of Amino Acids, Proteins and Enzymes and their properties and applications.
- ❖ Learn the importance of Polymers and Dyes in everyday life.
- ❖ Understand the structure of DNA & RNA.
- ❖ Know the structure and application of some important drugs.


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SEMESTER	COURSE	SUBJECT CODE	TITLE OF THE PAPER	CREDITS	MARKS
Fourth Semester	DSC- 4A	UCHEM A04	ALLIED CHEMISTRY PRACTICAL – II	1	25

Course Objective:

- To get the practical knowledge on analysis of organic compounds containing single functional group

Course Learning Outcome:

Upon successful completion students will be able to:

- ❖ Acquire the practical skills of analysis of organic compounds containing single functional group.
- ❖ Separate the components in an organic mixture using their solubility properties.


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CO5: Understand the definition of Laplace transform and Inverse Laplace transform and its properties. Apply Laplace transform to solve the differential equations.

TAGORE GOVT. ARTS & SCIENCE COLLEGE, PUDUCHERRY

**Department of Chemistry
Objectives and Learning Outcomes of
B.Sc. Chemistry Degree Program**

INTRODUCTION:

The CBCS Course curriculum of our B.Sc. Chemistry program is well designed and very promising. The core course would help to enrich the subject knowledge of the students and increase their confidence level in the field of both academia and industry. The introduction of Skill Enhancement Courses (SEC) would help to gain more powerful knowledge not only in their core Chemistry subject but also in interrelated multidisciplinary subjects both theoretically and practically. The inclusion of Discipline Specific Courses (DSE) has brought an opportunity in front of students to gain knowledge on various naturally and industrially important useful materials. Generic electives make integration among various interdisciplinary courses to fulfill the vision and mission of designing the course.

OBJECTIVE OF THE PROGRAM:

Get the students

- To study the laws of chemistry that controls various transformations.
- To understand matter and its behavior.
- To know about the scientific methods and gain skills in innovation, critical thinking, deductive reasoning, problem-solving and communication.
- To develop a wide variety of useful materials, such as medicines for the treatment of diseases, materials that can be used as sources of alternative energy, materials that protect the environment and structures that are advanced in building technology.
- To increase student interest in STEM careers.
- To develop careers in: medicine, environmental science, engineering, toxicology, developing consumer products, metallurgy (studying how metals behave), space exploration, developing perfumes and cosmetics, pharmaceuticals, energy, teaching, science writing, software development and research.

LEARNING OUTCOME OF THE PROGRAM:

Upon successful completion of the program students

- Gain the theoretical as well as practical knowledge of handling chemicals.
- Acquire a broad foundation in chemistry that stresses scientific reasoning and analytical problem solving with a molecular perspective.
- Understand the importance of the elements in the periodic table including their physical and chemical nature and role in the daily life.
- Understand the concept of chemistry to inter relate and interact to the other subject like mathematics, physics, biological science etc.
- Achieve the skills required to succeed in graduate school, professional school and their careers in chemical industries like cement industries, agro product, paint industries, rubber industries, petrochemical industries, food processing industries, fertilizer industries etc.
- Gets exposure to a breadth of experimental techniques using modern instrumentation.


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- Learn the laboratory skills and safely to transfer and interpret knowledge entirely in the working environment.
- In brief the student graduated with our curriculum would be able to disseminate subject knowledge along with necessary skills to suffice their capabilities for academia, entrepreneurship and industry.

**DEPARTMENT OF BOTANY
TAGORE GOVERNMENT ARTS AND SCIENCE COLLEGE
PUDUCHERRY**

COURSE OBJECTIVES OF B.Sc. BOTANY (CBCS)

(2017 - 2018 ONWARDS)

I submit the details of B.Sc. Botany (CBCS) as per the reference cited above for your kind perusal:

PROGRAMME OBJECTIVE AND OUTCOME OF B.Sc. BOTANY (CBCS):

The degree of **Bachelor of Science in Botany (Choice Based Credit System)** aims to introduce the students to various aspects of Plant Biology and interdisciplinary subjects. At the end of the course, the students are expected to have good working knowledge in the field of Botany and in addition knowledge gained from courses of interdisciplinary in nature.

COURSE OBJECTIVES AND OUTCOME:

Thallophytes, Microbes and Plant Pathology:

1. Students are exposed to learn primitive group of life forms including Viruses, Bacteria, Fungi, Lichens and Algae. They will also able to distinguish it from other life forms by various laboratory practices.
2. They learn its classification, outline structure and reproduction.
3. They also learn its importance to the society.

Archegoniatae (Bryophytes, Pteridophytes, Gymnosperms and Paleobotany):

1. Students are exposed to learn next higher level of plant groups which are commonly found in land habitats including Bryophytes, Pteridophytes and Gymnosperms.
2. They learn its classification, outline structure, reproduction and economic importance.
3. In addition, they will also learn fossil documentation of some plants from different geological time scale.

Developmental Botany (Cell Biology, Angiosperm Anatomy and Embryology):

1. Students are exposed to learn ultra-structure of eukaryotic cell, cell organelles and its functions.
2. They learn different types of plant tissues and plant cells in angiosperms (Angiosperm anatomy). They also learn different stages of cell division, reproductive organs and fertilization in plants.
3. At the end of the course, they will able to distinguish different plant tissues, cell division and embryos of angiosperm plants through microscope.

Field Botany (Ecology and Angiosperm Taxonomy):

1. Students are exposed to learn about ecological niches, ecological factors, different ecosystem and flow of energy within the ecosystem. They also learn to calculate the density of plant population in an ecosystem.
2. They learn the classification, nomenclature and identification of various angiosperm plants.



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3. They also develop the skill for collection, processing and herbaria preparation of various angiosperm plants.

Botany Supportive Paper I:

1. Non-botany students (Zoology and Chemistry students) are exposed to learn different hierarchy of plants from primitive forms to higher plants.

2. They also learn economic importance of some higher plants.

3. They develop the skill for identification of some angiosperm family.

Botany Supportive Paper II

1. Non-botany students (Zoology and Chemistry students) are exposed to learn different plant cell organelles, plant cell division, plant anatomy, plant physiology, agricultural importance of plant microbes and plant ecology.

2. They also develop the skill for taking thin cross section of plant parts such as stem, leaf and root through laboratory practises.

Medicinal Botany:

1. Non-botany students are exposed to learn about different types of crude drugs obtained from plants, which are medically important.

2. They also learn to identify the crude drugs and adulteration through some chemical tests, microscopic and histochemical investigation.

3. In addition, they also exposed to learn about antibiotics and its extraction.

Economic Botany:

1. Non-botany students are exposed to learn about origin of some economically important plants.

2. It includes fibre, timber, oil yielding plants, spices and condiments.

3. At the end of the course, they develop the skill for histochemical analysis of some plants.

External Morphology of Angiosperms:

1. Students are exposed to learn morphology of different plant parts such as root, stem, leaves, flower, fruits and seeds.

2. This course will help the students for identification of plant at least at the level of family classification based on their morphology.

Herbal Botany:

1. Students are exposed to learn about medicines derived from plants, its cultivation, harvesting, processing and storage.

2. They learn the pharmacognosy and phytochemistry of some important herbal plants.

3. They also learn herbal preparations such as ointment, tincture, decoction and surnas.

Genetics:

1. Students are exposed to learn some advanced topics in biology through genetics.

2. They learn mendelian ratios and its modification through linkage, cross over or gene interaction studies.

3. They also learn various experiments in genetics.

Horticulture and Plant Breeding:

1. Students are exposed to learn different types of gardening including, vegetable, fruit, nutrient and kitchen gardening.

2. They learn about different types of reproduction in crop plants


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3. They also learn to improve the yield and quality of the crops by various selection and breeding methods.

Molecular Biology:

1. Students are exposed to learn some important biological molecules, structure and synthesis including DNA, RNA and proteins.

2. They develop the skill for some basic molecular biology experiments such as genomic DNA and RNA extraction from plant tissues.

3. At the end of the course, they may develop the skill to work in any molecular biology industries.

Plant Physiology and Biochemistry:

1. Students are exposed to learn different metabolic pathway in plants including photosynthesis and different CO₂ fixation pathways in plants.

2. They learn different structure, function and classification of proteins and enzymes.

3. At the end of the course, they learn to do some biochemical and physiology experiments by their own.

Plant Biotechnology:

1. Students are exposed to learn various methods of plant tissue culture including callus culture, somatic embryogenesis, meristem, anther and ovary culture.

2. They learn different methods of production of recombinant/genetically modified plants.

3. They develop the skill for surface sterilization, autoclaving, media preparation and aseptic culture of plant tissues.

Project work:

1. Students are exposed to develop the skill of creativity, critical thinking and analysis of experimental as well as non-experimental data.

2. At the end, they are highly motivated to select research carrier in future.

Mushroom Culture:

1. Students are exposed to learn about the importance of mushroom for health benefits as well as for employment opportunities in future.

2. They learn different methods of mushroom culture, harvesting and storage.

3. At the end of the course, they learn how to do mushroom business by their own.

Biofertilizers and Organic Farming:

1. Students are exposed to learn about the importance of fertilizers and manures for crop production including algal, fungal and bacterial fertilizers.

2. They also learn about organic farming and preparation of organic manures.

3. At the end of the course, they learn how to produce organic manures and production of biofertilizers.

Biostatistics and Computer Applications in Biology:

1. Students are exposed to develop data analysis skill through biostatistics. They will be able to calculate all the measures of central tendency including mean, median and mode.

2. They learn some basic and biology related softwares in computer application.

3. At the end of the course, they develop the skill for basic statistical calculation and computer application by their own.

Horticulture:

1. Students are exposed to learn about different methods of gardening including fruit gardening, kitchen gardening and vegetable gardening.

2. They develop the skill of nursery management and maintenance.

Plant Tissue Culture:

1. Students are exposed to learn various methods and techniques used in plant tissue culture.
2. They learn how to produce secondary metabolites through tissue culture and micropropagation.
3. At the end of the course, they know how to culture the plant tissues.

Ethnobotany:

1. Students are exposed to learn traditional usage of plants for treating various ailments.
2. They also learn different ethnic groups, protection and preservation of traditional knowledge by various initiatives and steps.
3. At the end of the course, they learn our traditional system of medicinal plants and their usage.

Intellectual Property Rights:

1. Students are exposed to learn intellectual properties and its protection by various laws at India and at world level.
2. They learn how to patent or protect their own findings, copyrights, trademark and geographical indication.
3. At the end of the course, they know how to protect their knowledge legally at national as well as at world level.

Green House Technology:

1. Students are exposed to learn some basics related to green house technology and its different types.
2. They learn fertilizer application, water irrigation, plant protection and various usage of green houses.
3. At the end of the course, they learn how to use green houses for various ornamental and exotic plants cultivation.

Public Administration:

1. Students are exposed to learn basic hierarchy in Government administrative services at the centre, state and union territory level.
2. They also learn fundamentals rights and various commissions.

Environmental Studies:

1. Students are exposed to learn our ecosystem and its types.
2. They also learn different types of environmental pollution.
3. At the end of the course, they learn how to keep our surroundings, clean and green.

(Note: Syllabus is attached here with. Aim of the course is mentioned in the syllabus page number 2)

06..09.2023 HOD OF BOTANY


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**TAGORE GOVERNMENT ARTS & SCIENCE COLLEGE,
DEPARTMENT OF ZOOLOGY,
PROGRAMME OUTCOME AND COURSE OUTCOME.**

Programme outcome

- To acquire knowledge across different areas of animal science and understand the importance of animals in the biosphere.
- Provides an opportunity to familiarise with the functional anatomy and mode of reproduction in different animal groups
- The topics included in different units of respective paper would enable the students to develop technical skills in zoological and allied branches.
- Skill based subjects like Vermitechnology, Clinical Laboratory Techniques, Apiculture and Aquatic Biology included in order to promote their skills and provide employable opportunities in the field of higher studies and research in Government and private organizations
- There is also scope for self employment for the students
- Practical included in the syllabus will improve the skills of students in microscopy, observation drawing and laboratory techniques.

Details of the Subjects under CBCS

1.Discipline Specific Core(DSC)

- Biodiversity of Invertebrates
- Biodiversity of Vertebrates
- Animal Physiology
- Developmental Biology

Discipline Specific Core for Botany & Chemistry

- Basic Zoology
- Animals and Human welfare.

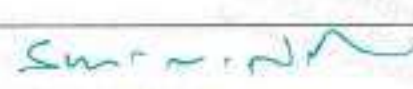
Skill enhancement courses(SEC)

- Vermitechnology & Clinical Laboratory Technology
- Apiculture & Aquatic Biology and culture techniques.

TAGORE GOVT. ARTS & SCIENCE COLLEGE, DEPARTMENT OF ZOOLOGY,

Course Outcomes for B. Sc, Zoology under CBCS effective from 2017-18

I.B.Sc., Zoology	I Semester	Biodiversity of Invertebrates	To understand Biodiversity, Habitat, Adaptation, organization and taxonomic status of invertebrates.
		Public Administration	Explaining the basic aspects of classification, structural and functional details of Invertebrates.
	II Semester	Biodiversity of Chordates & Vertebrates	To discuss habitat, adaptations and organization of Chordates.
		Environmental Studies	To aware the ecological importance of fauna and flora diversity and environment consciousness.
I.B.Sc., Botany	I Semester	Basic Zoology	To impart basics of classification and animal kingdom.
	II Semester	Animals & Human Welfare	To understand the animals and its usefulness to human welfare.
I.B.Sc.,	I Semester	Basic Zoology	To impart basics of classification and animal kingdom.


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Chemistry	II Semester	Animals & Human Welfare	To understand the animals and its usefulness to human welfare.
II.B.Sc., Zoology	III Semester	Animal Physiology	Explaining various aspects of physiological activities of animals with special reference to mammals.
		Vermitechnology	To impart training on Earthworm culture technology. To create knowledge on Self - Employment opportunity.
	IV Semester	Developmental Biology	To understand ontogenesis, the development of animals including parthenogenesis and to study embryonic adaptations, human reproduction and reproductive technology in man.
		Clinical Lab Technology	To impart awareness on Clinical Lab Technology To create knowledge on Self-Employment Opportunity.
III .B. Sc., Zoology	V Semester	Apiculture	Entrepreneur motivation for practicing apiculture as cottage industry.
		Immunology	To study the process which help to maintain the organisms internal environment, when challenged with foreign substances.
		Cell & Molecular Biology	To understand the advances in Immunology.
		Biochemistry & Intermediary Metabolism	To learn the structure and functions of various cellular components. To understand the molecular basis of cell structure DNA structure and functions.
		Public Health and Hygiene-GE	To define and explain the basic principles of biochemistry and metabolic pathway. To impart awareness on public health and Hygiene. To create knowledge on Health Education.
	VI Semester	Aquatic Biology	To study and understand the biology of fishes and make the students to know about the culture techniques of fish.
		Endocrinology Reproductive Biology	Explaining the role of hormones on physiological activities of animals with special reference to humans.
		Evolution & Conservation Biology	To explain the scientific concepts of animal evolution through theories and evidences.
		Genetics & Biotechnology	To know the principles of Genetics and to integrate biology with technology.
		Value Added Products of Animals-GE	

B.Sc., COMPUTER SCIENCE

1. Aim of the Course

[Signature]

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The B.Sc. (Computer Science) course aims to impart the students with fundamental and hands on knowledge of computers, science of computing and modern computer science technologies.

2. Programme Outcomes

B.Sc (CS) programme has been designed to prepare graduates for attaining the following specific outcomes:

PO1 – It provides an ability to apply knowledge of Mathematics, Computer software and hardware in practice. It enhances not only comprehensive understanding of the theory but practical also.

PO2 - The program prepares the young professionals in wide range of areas such as Digital logics and computer architecture, Algorithms, Programming, Networking, Software Engineering, Information Security, Web Designing, Micro-processors and micro-controllers.

PO3 - In order to enhance programming skills of the young IT professionals, the program has introduced the ability to identify a problem, isolate its key components, analyze and assess the salient issues, set appropriate criteria for decision making, and draw appropriate conclusions and implications for proposed solutions.

PO4 – The program equips to demonstrate the capabilities required to apply cross-functional business knowledge and technologies in solving real-world problems and to demonstrate use of appropriate techniques to effectively manage business challenges.

PO5 - Curriculum is divided based on various streams specialization that is needed in the IT Domain. Hence a student can specialize himself/herself in a particular stream.

PO6 - It provides an opportunity to prepare for the competitive examination and also getting admission to Higher Education.

PO7 - Become employable in various IT companies as programmer, system engineer, software tester, junior programmer, web developer, system administrator, software developer etc.

PO8 – Ability to work in public sector undertaking and Government organizations.

COURSE OUTCOME:

1. INTRODUCTION TO PROBLEM SOLVING USING C

Outcomes:

In-depth understanding of various concepts of C language.

Skill to write program code in C to solve real world problems and to debug a Program

2. DIGITAL LOGIC & COMPUTER ORGANIZATION

Outcomes:

Skill to use the methods of systematic reduction of Boolean expression using K- Map. Ability to interpret logic gates and its operations.

Familiarization with combinational and sequential logic circuits in electronics.

3. PYTHON PROGRAMMING

Outcomes:

Skill to write codes in Python to solve mathematical or real world problems.

Ability to isolate and fix common errors in Python programs.

4. DATA STRUCTURES & ALGORITHMS

Outcomes:

Skill to analyze data and to determine appropriate data structure. Knowledge of various data structures and their implementations.

Ability to implement algorithms to perform various operations on data structures.

5. OPERATING SYSTEMS

Outcomes:

Understand how memory is utilized. Understand CPU scheduling algorithms to manage tasks.

Knowledge of methods to prevention and recover from a system deadlock. Manages I/O devices.

6. OBJECT ORIENTED PROGRAMMING USING JAVA

Outcomes:

Skill to write Java application programs using OOP principles and proper program structuring.

Ability to create packages and interfaces. Ability to implement error handling techniques

using exception handling.

7. COMPUTER NETWORKS 3 0 0

Outcomes:

Knowledge of OSI Layers in Computer Network.

Ability to identify transmission media, types and topologies of network. Familiarization with the techniques of error detection and congestion control

8. SOFTWARE ENGINEERING

Outcomes:

Understanding of various methods or models for developing a software product.

Ability to analyze existing system to gather requirements for proposed system. Skill to design and code a software.

9. PROGRAMMING WITH VISUAL BASIC

Outcomes:

Understand Forms, module, components, menu editor and its concepts. Usage of controls such as text box, buttons, checkbox etc and control them through codes.

Ability to develop simple project with database using data source.

10. DATABASE MANAGEMENT SYSTEM

Outcomes:

Understand data modeling and database development process. Construct and normalize conceptual data models.

Implement a relational database into a database management system. Become proficient in using database query language.

11. WEB TECHNOLOGY

Outcomes:

Understand the various steps in designing Creative and dynamic website.

Ability to write HTML, JavaScript, CSS and ASP.

12. MICROPROCESSORS AND MICROCONTROLLERS

Outcomes:

Get clear idea about the architectures and instruction set of microprocessor and microcontroller.

Do the arithmetic operation, logical operations and code conversion

13. PROJECT

Outcome:

The course outcome is the ability of the student to apply Software Development Cycle to develop a software module. The student will be able to use the techniques, skills and modern software engineering tools necessary for software development. Develop a software product along with its complete documentation.

The project is of 2 hours/week for one (semester VI) semester duration and a student is expected to do planning, analyzing, designing, coding, and implementing the project. The initiation of project should be with the project proposal. The synopsis approval will be given by the project guides.

The project proposal should include the following:

Title

Objectives

Input and output

Details of modules and process logic

Limitations of the project

Tools/platforms, Languages to be used

Scope of future application

The project work should be either an individual one or a group of not more than three members and submit a project report at the end of the semester. The students shall defend their dissertation in front of experts during viva-voce examinations.


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B.Sc. PSYCHOLOGY, TGASC.

PROGRAM OUTCOME

To encourage students with aptitude, interest and skills to join for graduate programs in Psychology and to build up a work force of competent psychologist within the public reach. This system will provide an opportunity to students to design curriculum to suit their individual needs, mobility across related disciplines and institutions in both horizontal and vertical manner. The syllabi provide space for students from other disciplines to explore selected courses which will enable them to deal effectively with demands and challenges of everyday life. It tries to incorporate conventional, relevant and advanced areas by integrating and sequencing the courses, concepts and topics in a systematic fashion.

COURSE OUTCOME OF ALL PAPERS

1. FOUNDATIONS OF PSYCHOLOGY – I

- Ø To introduce the students to the subject of psychology, nature, scope and schools of psychology.
- Ø To familiarize the methods used in psychology and to facilitate their knowledge about causes of behaviour.
- Ø To understand the basic psychological processes and their applications in everyday life.

2. BIOLOGICAL BASIS OF BEHAVIOUR

- Ø To develop awareness about the biological basis of behavior.
- Ø To acquaint students with physiology nervous system and endocrine system.
- Ø To develop an understanding of sensory processes and muscles
- Ø To promote the understanding of the physiology of learning, memory, motivation emotion, etc.

3. FOUNDATIONS OF PSYCHOLOGY – II

- Ø To enable students have a strong foundational course in psychology.
- Ø To develop interest among students in psychological concepts of learning, memory and forgetting, thinking, motivation and personality.

4. SOCIAL PSYCHOLOGY

- Ø To enable students to appreciate the influence of social and cultural factors on individual behavior.
- Ø To understand the social problems in terms of various social psychological theories.
- Ø To understand the unique features of the students' socio-cultural contexts with respect to India and other countries.

5. DEVELOPMENTAL PSYCHOLOGY I

- Ø To acquaint students with the knowledge of human development and developmental processes along with theories.
- Ø To facilitate awareness of the methods of study to understand child development.
- Ø To provide students with an awareness about the various stages in physical, cognitive, emotional and social development in infancy and childhood.

6. EXPERIMENTAL PSYCHOLOGY


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To create interest in the subject matter of psychology
To develop scientific and experimental attitudes in the student
To facilitate comprehension of the theoretical concepts through experiments
To develop the skills of observation and scientific reporting in psychology
To provide basic training in planning and conducting a psychological experiment
To familiarize the student with psychological instruments and tools.

7. PERSONALITY DEVELOPMENT

To create awareness about biological, psychological and socio-cultural factors in personality development.

8. DEVELOPMENTAL PSYCHOLOGY II

To provide an overview of the role of physical, cognitive and psycho-social development of adolescents.

To facilitate understanding the developmental changes in various stages of adulthood.

9. PSYCHOLOGICAL ASSESSMENT

To nurture the ability in students to understand himself/herself and other persons
To develop the skills of testing and scientific reporting in psychology
To familiarize the students to various psychological tests and assessment tools
To generate an interest in working of the community with a psychological outlook.

10. LIFE SKILLS

To encourage and motivate students about the larger issues of life and living
To introduce various skills needed by an Individual to deal effectively with the demands and challenges of everyday life.

11. STRESS MANAGEMENT

To understand the main symptoms and sources of stress
To learn ways of coping with stress.

12. PSYCHOPATHOLOGY

Ø To create an interest in students to know and understand the causes, signs, and symptoms of various mental disorders.
Ø To facilitate the development of scientific outlook in contrasting normality and abnormality and to classify mental disorders according to the latest classification criteria.
Ø
To make students understand the nature and course of development of various abnormal conditions.

13. HEALTH PSYCHOLOGY

To understand the relationship between psychological factors and physical health
To enable students to understand the methods of health enhancement.

14. COUNSELLING PSYCHOLOGY


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- To develop an understanding about the basic concepts, processes and areas of counselling
2. To acquaint the learner with the issues and challenges involved in counselling.

15. PSYCHOLOGY FOR EFFECTIVE LIVING

- To understand areas of life where basic psychological facts can be applied.
To modify lifestyles according to the personal demands.

16. MANAGING EMOTIONS

- To help the students learn how to understand and manage their emotions
To develop emotional competencies

17. STATISTICS FOR PSYCHOLOGY

- To understand the meaning of statistics along with different types of statistical analyses.
To get acquainted with elementary statistics and their place of application

18. COUNSELLING SKILLS AND TECHNIQUES

1. To acquire knowledge about basic skills in counselling
2. To enrich the learner with effective counselling techniques derived from sound theoretical bases.

19. SCHOOL PSYCHOLOGY

1. To acquaint the students with the nature of human abilities and its implications for school education.
2. To acquaint the students with the nature of exceptionality and its consequences.
3. To acquaint the students with the contribution of heredity and environment on school performance.
4. To help students understand the theoretical and professional aspects of school psychology.
5. To help Students to get acquainted with various applications of School Psychology.
6. To equip the students with assessment and guidance know how in school set up.

POSITIVE PSYCHOLOGY

20. Understand the role Psychology for positive behavioural outcomes
Know the factors and mechanism in fostering positive behaviour.

தா.கூ.அரசகலைமற்றும் அறிவியல்கல்லூரி
புதுச்சேரி
தமிழ்த்துறை

இளங்கலைத்தமிழ்
பாடத்திட்டத்தின் நோக்கம்



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தமிழ்மொழிஇலக்கியஇலக்கணசெழுமைகொண்டமொழிஆகும்,
உலகில்உள்ளதொன்மையானமொழிகளில்தமிழ்மொழியும்ஒன்றாகும்.
மிகப்பழங்காலத்திலேயேஇலக்கியஇலக்கணம்தோன்றியசிறப்புமிக்கமொழியாகும்.
இதுசெம்மொழிஎன்றபெருமையையும்பெற்றுள்ளது.
பிறசமயச்சான்றோர்களும்இலக்கியம்படைத்தமொழியாகவும்திகழ்கிறது.
தமிழ்"பக்தியின்மொழி" எனகுறிப்பிடத்தக்கமேன்மையைப்பெற்றுள்ளது.

மொழியின்அமைப்பைநன்குஉணர்ந்துகொள்ளத்தக்கஇலக்கணவளம்செறிந்தது.
ஐந்துவகைஇலக்கணங்கள்தமிழ்மொழியின்சிறப்பிற்குஎடுத்துக்காட்டாய்பறைசாற்றக்கூடிய
எதமிழ்இலக்கியங்கள்பல்வேறுகாலகட்டங்களில்பல்வேறுபுலவர்களால்இயற்றப்பெற்றுள்ள
வை.
அவைஇக்காலஇலக்கியமுதல்சுராயிரம்ஆண்டுகளுக்குமுற்பட்டசங்கஇலக்கியம்வரைபருவம்
தோறும்கற்கும்வகையில்வகைப்படுத்தப்பட்டுள்ளன.

இத்தகுசிறப்புமிக்கதாய்மொழியாந்தமிழைப்பட்டப்படிப்பாகப்பாடத்திட்டம்அமைத்து
படிப்பதுசிறப்புமிக்கது.
தமிழின்சிறப்பைஅடுத்தடுத்தலைமுறைக்குக்கொண்டுசெல்லும்பணியாகவேஇளங்கலைத்
தமிழ்பாடத்திட்டம்வடிவமைக்கப்பெற்றுள்ளது.
ஒவ்வொருதாளும்ஒவ்வொருநோக்கத்தின்அடிப்படையில்வரிசைப்படுத்தப்பட்டுள்ளது.

மாணவர்களின்கற்றல்திறனைமேம்படுத்தவும்பாடத்திட்டத்தோடுமென்திறன்களைவ
ளர்த்துக்கொள்ளவும்பாடத்திட்டம்வழிவகைசெய்கிறது.
தற்காலமின்னியல்சாதனங்கள்மூலம்திறன்களைவளர்த்துக்கொள்ளவானொலி,
தொலைக்காட்சி, திரைப்படம், கணினிஉள்ளிட்டவைபாடத்திட்டத்தில்இடம்பெற்றுள்ளன.
சமூகவலைத்தளங்களானபுலனம் (whatsapp), முகநூல் (Facebook), மின்னஞ்சல் (E-Mail),
காணொளி (Youtube)
முதலானவைபற்றியும்மாணவர்கள்அறிந்துகொள்வதுஅவசியம்ஆகையால்பாடத்திட்டத்தில்
இவைஇடம்பெற்றுள்ளன.

முதலாண்டு - முதல்பருவம்

இக்காலஇலக்கியம் - I

மொழிநடையின்அடிப்படையில்மாணவர்கள்எளிதாகப்புரிந்துக்கொள்ளும்வகையில்
இக்காலஇலக்கியம்என்றபாடம்முதன்முதலாகஅறிமுகப்படுத்தப்படுகிறது.

அவ்வகையில்சிறுகதை,
நாவல்இலக்கியங்கள்எளிமைத்தன்மைஉடையவைஎன்பதால்முதலில்இடம்பெற்றுள்ளன.

இலக்கணம் - I

நன்னூல் - எழுத்ததிகாரம்

தமிழ்மொழியின்இலக்கணத்தைஎழுத்து, சொல், பொருள், யாப்பு,
அணிஎன்றவரிசைமுறையில்கற்பித்தல்சிறப்பானதுஎன்பதால்நன்னூல்எழுத்ததிகாரம்இடம்
பெற்றுள்ளது.


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பவணந்திமுனிவரின்நன்னூல்எழுத்ததிகாரம்அடிப்படையானதுஎன்பதால்பாடத்திட்டத்தில் முதலில்இடம்பெற்றுள்ளது.

ஊடகவியல் (குணைப்பாடம்)

தகவல்தொடர்புச்சாதனங்கள்இன்றையநிலையில்உலகமிகச்சிறியதாகியதோடுஇன்றுஉலகையேநம்உள்ளங்கைகளில்கொண்டுவந்துசேர்த்துவிட்டது. மின்னணுசாதனங்கள்மற்றும்ஊடகம்முதலானவற்றைஇன்றையமாணவர்கள்அறிதல்இன்றியமையாததாலின்இவற்றைஅறிந்துகொள்ளும்நோக்கில்ஊடகவியல்என்றதுணைப்பாடம்இடம்பெற்றுள்ளது.

இரண்டாம்பருவம்

இக்காலஇலக்கியம் - II

தமிழ்மொழியில்கவிதைஇலக்கியமும்குறிப்பிடத்தக்கதாகஉள்ளது. மரபுக்கவிதைதமிழின்தொன்மைவடிவம்; புதுக்கவிதைஅண்மைவடிவம். இவற்றைஅறிவதற்கும்நாடகத்தமிழின்சிறப்புகளைக்கற்றுஉணரும்வகையிலும்இக்காலஇலக்கியம்இடம்பெற்றுள்ளது.

இலக்கணம் - II

நன்னூல் - சொல்லதிகாரம்

எழுத்துக்கள்பற்றிஅறிந்துகொண்டபின்சொற்களின்இலக்கணத்தைஅறிவுறுத்தவேண்டியதுஅவசியம். பெயர், வினை, இடை, உரிஎன்னும்நான்குவகைச்சொற்கள்தமிழ்மொழியின்அடிப்படையாகும். அவற்றைப்பற்றிஅறிந்துகொள்ளும்நோக்கில்நன்னூல்சொல்லதிகாரம்இடம்பெற்றுள்ளது.

பயன்பாட்டுத்தமிழ்

இன்றையகாலச்சூழலுக்குப்பயன்படும்வகையில்தமிழ்ச்சொற்களைப்பிழைநீக்கிஎழுதவும், பல்வேறுவகையானவிண்ணப்பங்களைப்பூர்த்திசெய்யவும், தன்விவரக்குறிப்புகளைத்தயார்செய்யவும்பயிற்சிகொடுக்கும்நோக்கில்பயன்பாட்டுத்தமிழ்பாடமாக்கப்பெற்றுள்ளது.

இரண்டாம்ஆண்டு - மூன்றாம்பருவம்

இலக்கியம் - III - சமயஇலக்கியம்சிறநிலக்கியம்

சமயப்பொதுமையைக்கடைப்பிடிக்கும்வகையில்சைவம், வைணவம், கிறித்தவம், இசுலாம்ஆகியசமயம்சார்ந்தஇலக்கியங்கன்பாடமாகவைக்கப்பெற்றுள்ளன. இதன்மூலம்இன்றையகுழலில்மாற்றுச்சமயத்தவரையும்நேசிக்கவேண்டியதன்அவசியம்புலனாகும். சமயஇலக்கியத்தின்தொடர்ச்சியாகசிறநிலக்கியத்தின்வளர்ச்சியும்அறிதல்அவசியம். அதனால்கிறநிலக்கியமும்பாடமாகஇணைக்கப்பட்டுள்ளது.

இலக்கணம் - III - யாப்பருங்கலக்காரிகை

தமிழ்இலக்கியம்பயில்வோருக்குபாடல்புனையும்ஆற்றல்மிகவும்இன்றியமையாததாகும்.


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எனவேயாப்புஇலக்கணத்தைக்கற்றுக்கொடுத்துபாபுனைவதற்குமாணவர்களைத்தயார்படுத்துவதுஇத்தாளின்நோக்கமாகும்.

தமிழகவரலாறும்பண்பாடும்

தமிழ்மொழிஇலக்கியங்கள்பயில்வோருக்குதமிழகவரலாறும்பண்பாடும்நன்கறிந்திருக்கவேண்டியதுஅவசியமாகும்.
அப்போதுதான்இலக்கியத்தின்தோற்றவளர்ச்சிபின்னணியையும்அறியமுடியும்.

மொழிபெயர்ப்பியல்

இறவாதபுகழுடையபுதுநூல்கள்தமிழ்மொழியில்பெயர்த்தல்வேண்டும்.
பிறமொழியின்சிறந்தபடைப்புகளைத்தமிழ்மொழியில்மொழிபெயர்த்தல்அவசியம்ஆகும்.
ஒப்பீட்டுநோக்கில்சிறந்ததைவெளிக்கொணரும்.
மொழிபெயர்ப்புப்பணிஅனைத்துமொழியினருக்கும்உரியதாகும்இதன்மூலம்பிறமொழியின்
ரின்மொழிஅமைப்பு, கலாச்சாரம், பண்பாடு,
நாகரிகம்மற்றும்சமுதாயக்கூறுகளைஉணரலாம்.
இந்தநோக்கத்திற்காகமொழிபெயர்ப்பியல்பாடமாக்கப்பட்டுள்ளது.

நான்காம்பருவம்

இலக்கியம் - IV - காப்பியங்கள்

பக்திஇலக்கியகாலத்திற்குப்பின்னர்நீண்டகதைதழுவியஇலக்கியங்களானகாப்பியங்கள்
தோற்றம்பெற்றன. ஐம்பெருங்காப்பியங்கள்,
ஐஞ்சிறுகாப்பியங்கள்என்றபாகுபாடுதமிழுக்குப்பெருமைசேர்க்கக்கூடியவையாகும்.
இதைத்தமிழ்இலக்கியம்பயிலும்மாணவர்கள்அறிதல்வேண்டும்என்றநோக்கில்காப்பியங்கள்
என்றபாடம்இடம்பெற்றுள்ளது.

இலக்கணம் - IV - தண்டியலங்காரம்

செய்யுள்இலக்கியம்சிறப்புபெறுவதற்குஅணிகள்காரணமாகும்மொழியின்அழகிற்கும்
புலவனின்படைப்புத்திறத்திற்கும்அடித்தளமாகவிளங்கும்.
அணிகளைஅறிதல்அறிவுப்பெருக்கத்திற்குவலுசேர்க்கும்.

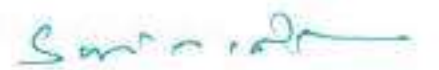
படைப்புக்கலை

இலக்கியம்படைப்பதற்குக்கற்றுக்கொள்ளும்வகையில்படைப்புக்கலைஇடம்பெற்றுள்
ளது. மாபுக்கவிதை, புதுக்கவிதை, ஹைகூகவிதைபடைப்பதற்கும், சிறுகதை,
நாடகம்படைப்பதற்கும்பயிற்சிஅளிக்கப்பெறுவதுஇப்பாடத்தின்அடிப்படையாகும்.

இணையத்தமிழ்

தற்காலத்தில்கணினிகற்காதவன்கால்மனிதன்என்றுசொல்லும்அளவுக்குக்கணினிநம்
வாழ்வில்முக்கியஇடத்தைப்பெற்றுள்ளது. எங்கும்கணினி,
எதிலும்கணினிஎல்லாம்கணினிமயம்என்பதைஅறிதல்வேண்டும். மின்னிதழ்கள்,
மின்நூல்கள், வலைப்பதிவுகள்இவற்றைஅறிவதுகாலத்தின்கட்டாயம்ஆகிறது. ஆகவே,
இணையத்தமிழ்பாடமாக்கப்பட்டுள்ளது.

மூன்றாம்ஆண்டு - ஐந்தாம்பருவம்



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மொழியியல்

ஒலி,

ஒலியன்உருபு,

உருபன்,

தொடரியல்முதலானமொழியியல்செய்திகள்இலக்கியவியலாளருக்கும்,
இலக்கணம்படைப்போருக்கும்முதன்மையானவையாகும். ஆகவே, மொழியின்வரலாறு,
வளர்ச்சிஇவற்றைத்தெரிந்துகொள்ளமொழியியல்பாடம்இடம்பெற்றுள்ளது.

இலக்கியம் - V - சங்கஇலக்கியம் - புறம்

சங்கஇலக்கியங்களில்புறத்திணைப்பாடல்கள்பண்டையபோர்நெறிகளைஎடுத்துரைக்
கின்றன.
போரியல்செய்திகளோடுபண்பாட்டுக்கூறுகளும்பொதிந்துகிடக்கின்றநிலையைஅறிதல்இன்
றியமையாததாகும்.

புறப்பொருள்வெண்பாமாலை

பொருள்இலக்கணம்இரண்டுவகைப்படும். அவைஅகப்பொருள், புறப்பொருள்.
புறப்பொருளுக்குத்திணைவகுத்துஅதன்அடிப்படையில்பாகுபாடுசெய்யப்பெற்றுள்ளதைபுற
த்திணைஇலக்கணம்சுட்டுகிறது.
புறத்திணைப்போர்முறைகளின்இலக்கணம்பாடத்தின்மூலம்அறியப்படுகிறது.

நாட்டுப்புறவியல்

ஏட்டில்எழுதாஇலக்கியம், பாமரர்இலக்கியம்,
காற்றிலேமிதந்துவந்தகவிதைஎன்றசிறப்புக்குரியவைநாட்டுப்புறஇலக்கியங்கள்.
அவைதமிழரின்உண்மைப்பண்பாட்டைஉலகிற்குஉணர்த்தக்கூடியவை.
அவற்றைஅறிதல்அவசியம்.

கல்வெட்டியல்

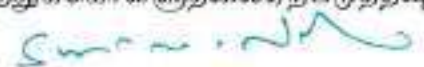
தமிழில்வழக்கிலிருந்ததொன்மைஎழுத்துமுறைகள்குறித்தும்கல்வெட்டு, செப்பேடு,
மெய்க்கீர்த்திகள்முதலானஆவணங்கள்குறித்தும்அறிவுறுத்தகல்வெட்டியல்என்றபாடம்இடம்
பெற்றுள்ளது.

சுவடியியல்

ஓலைச்சுவடிகளில்பழந்தமிழ்இலக்கியங்கள்எழுதப்பெற்றுள்ளன.
அவற்றைஓலைச்சுவடிகளைப்பதப்படுத்திஎழுத்தாணிகொண்டுஎழுதியுள்ளனர்.
அவ்வோலைச்சுவடிகளைப்பாதுகாத்தமுறை,
ஓலைச்சுவடிகள்அழிந்துபோனதற்கானதவறானநம்பிக்கைகள்ஆகியவற்றைக்குறித்துஅறிந்
துக்கொள்ளும்நோக்கில்சுவடியியல்இடம்பெற்றுள்ளது.

நாடகவியல்

முத்தமிழின்ஒருபிரிவானநாடகம்குறித்தவிரிவானபுரிந்துக்கொள்ளுதலைஏற்படுத்தவு
ம்,



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நாடகத்தின்பல்வேறுவளர்ச்சிநிலைகள்குறித்துஅறிந்துகொள்ளவும்நாடகவியல்பாடமாக்கப்
பட்டுநவீனநாடகம், அரங்கஅமைப்பு,
நாடகப்பிரதியைஉருவாக்குதல்குறித்ததகவல்களைஅறிதல்நாடகஉருவாக்கத்திற்குஅடித்தள
மாகஅமைகிறது.

மூன்றாம்ஆண்டு - ஆறாம்பருவம்

பேச்சுக்கலை

மொழியைக்கற்போருக்குஎழுத்தும்பேச்சும்இருகண்களாகும்.
பேச்சுக்கலைஆளுமைமேம்பாட்டிற்குஉறுதுணைபுரியும்.
எனவேசொற்பொழிவுக்கலையாகப்பேச்சுக்கலைபயிற்றுவிக்கப்பெறுகிறது.

பெரியாரியம்

தந்தைபெரியாரின்சிந்தனைகள்தமிழ்மண்ணில்மூடநம்பிக்கைகளுக்குமுடிவுக்கட்டுவ
னவாகச்சமதர்மச்சிந்தனைகள்மிளிர்ந்தன.
சுயமரியாதைச்சிந்தனைமனிதனைமனிதனாகவாழ்வழிவகைசெய்தது.
இதைஇளையதலைமுறையினர்அறியவேண்டிபெரியாரியம்இடம்பெற்றுள்ளது.

சங்கஇலக்கியம் - அகம்

சங்கஇலக்கியஅகப்பாடல்கள்பெயர்ச்சுட்டிப்பேசப்படாதவை.
எல்லாகாலத்திலும்அகப்பாடல்கள்அன்புஉணர்வைஏற்படுத்தக்கூடியவை.
பெயர்ச்சுட்டிப்பாடாதஇலக்கியப்பாடல்கள்உலகில்எம்மொழியிலும்இல்லை.
இச்சிறப்பைஉணர்த்தவும்காதல்வாழ்வைஉணர்ந்துக்கொள்ளவும்இப்பாடப்பகுதிஇடம்பெற்
றுள்ளது.

நம்பியகப்பொருள்

அன்பின்ஐந்தினையைஅடிப்படையாகக்கொண்டஇலக்கணம்அகப்பொருள்இலக்க
ணம். ஐந்திலஅமைப்பு, களவு, கற்புஎனும்கைகோள், உடன்போக்கு,
வரைவுமுதலானவாழ்வியல்முறையைஅறியும்நோக்கில்நம்பியகப்பொருள்பாடமாக்கப்பெற்
றுள்ளது.

திருக்குறள் - ஆழ்ந்திலைப்படிப்பு

உலகின்பெரும்பாலானமொழிகளில்மொழிபெயர்க்கப்பட்டுள்ளஉலகப்பொதுமறைதி
ருக்குறளைஆழமாகஊன்றிக்கற்றல்வேண்டும். எல்லாபொருளும்இதன்பால்உள;
இதன்பால்இல்லாதஎப்பொருளும்உலகில்இல்லை;
உலகிற்கேஅறம்போதிக்கும்நூல்திருக்குறள்.
இதைதமிழ்இலக்கியம்கற்போர்அறிதல்அவசியமாகும்.

புலம்பெயர்ந்தோர்இலக்கியம்

தமிழ்நாட்டிலிருந்துஇலங்கை, மலேசியா,
சிங்கப்பூர்முதலானபிறநாடுகளுக்குக்குடியேறியதமிழர்கள்இலக்கியம்படைத்துள்ளனர்;
படைத்தும்வருகின்றனர்.


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அவர்கள் படைத்து வருகின்ற இலக்கியங்களில் வெளிப்பட்டுள்ள அவர்களின் மனப்போராட்டம், வாழ்க்கைப்போராட்டங்கள் உள்ளிட்டவை அறிவது அவசியம். ஆகவே புலம்பெயர்ந்தோர் இலக்கியம் பாடமாக வைக்கப்பட்டுள்ளது.

புதுச்சேரி வரலாறும் பண்பாடும்

புதுச்சேரியை வசிப்பிடமாகக் கொண்ட நாம் இந்த மண்ணின் வரலாற்றையும் பண்பாட்டையும் அறிவது கட்டாயம். இந்நோக்கத்திற்காக இப்பாடம் இடம்பெற்றுள்ளது.

குறும்பட ஆக்கம்

குறும்படங்கள் தயாரிக்கக் கற்றுக்கொண்டால்திரைப்படங்கள் தயாரிக்கவும், இயக்கவும் முடியும். திரைப்படத்துறையில் வேலைவாய்ப்பைப் பெறவேண்டும் என்பதற்காக குறும்பட ஆக்கம் பாடத்திட்டத்தில் இடம்பெற்றுள்ளது.

கவிதையாக்கம்

மரபுக்கவிதை, புதுக்கவிதை எழுத பயிற்சி அளிப்பது இத்தாளின் நோக்கம். கவிதையின்பாடு பொருள், வாசிப்பு, திறனாய்வு என இவற்றைக் குறித்த அறிவை பெறுவது காலத்தின்கட்டாயம். அண்மைக்கால இலக்கிய போக்கு, அண்மைக்கால திறனாய்வு முறைகள் கட்டாயம் அறிந்திருத்தல் வேண்டும். இந்நோக்கமே இத்தாள் இடம்பெறுவதற்கான காரணமாகும்.

Department of English

B.A. ENGLISH

Course Outcome

To Introduce the students to notions of Culture and familiarize them with the history of Indian Culture through Literature.

Programme Outcome

(Choice Based Credit System) Syllabus 2017-18 onwards PONDICHERRY UNIVERSITY (A CENTRAL UNIVERSITY) 2017 PONDICHERRY UNIVERSITY SYLLABUS - CBCS

Syllabus-2017

Semester-I

DSC-1A

ENGL 111 Indian Writing in English

Course Outcome: To introduce students to different genres of Indian writing in English.

DSC-2 A ENGL 112 Prose:

Course Outcome: To Introduce British prose writings of various periods.

*AECC-1: ----- PADM 113 PUBLIC ADMINISTRATION


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Semester-2

DSC-1B: ENGL 121 **Poetry**

Course Outcome: To introduce students to the poetic thought down the ages.

DSC-2B :ENGL 122 -**Fiction**

Course Outcome : To familiarize students with some master pieces of British Fiction.

AECC- 2:- ----- ENV5123 ENVIRONMENTAL STUDIES Semester-3

DSC-1C: ENGL 231 **History of English Literature**

Course Outcome : To facilitate an appreciation of literature by providing a brief survey of British literature through ages and to introduce students to the best works of each age

. DSC-2C: ENGL 232 **English Language and Linguistics**

Course Outcome

To introduce students to the sound system and the structure of English Language.

SEC-1: ENGL 233 **Communication Skills**

Course Outcome To familiarize the students with the patterns of English Language

Semester-4

DSC-1D- ENGL241-**British Drama**

Course Outcome: To introduce students to British Drama,

DSC-2D -ENGL 242 **Literary Forms**

Course Outcome

To Introduce students to various types of Drama and Literary Terms.

. SEC -2 ENGL 243 **Writing Skills**

Course Outcome: To impart writing skills.To provide exposure to various types of written communication.

*DSE-1A, 2A, 3A

Semester -5 SEC3 ENGL 351 **English for Competitive Examination**

Course Outcome: to prepare students for competitive examinations

ENGL 352 **LITERARY CRITICISM**

Course Outcome: To introduce students to the evolution of critical thoughts.

ENGL 353 **Shakespeare**

Course Outcome :To introduce students to the works of Shakespeare

ENGL 354 **American Literature**

Course Outcome: To give an overview of American writings.

ENGL 355 **Post-Colonial Literature**



Course Outcome: To introduce the literature of the marginalized and the subaltern.

ENGL 356 English for Mass Media

Course outcome: to familiarize students with the basics of mass media communication

ENGL 357 Soft Skills

Course Outcome: to provide orientation in the effective use of English, team work, leadership qualities, group discussion and interpersonal skills

Semester-6

ENGL 361 Translation Studies

Course Outcome: To acquaint the students with theories of Translation.

*DSE- 1B, 2B, 3B:

ENGL 362 Literature in Translation

Course Outcome: To introduce students to the art of Translation through works of Literature To lead them to National and Global Literature through Translation

ENGL 363 -Contemporary Literary Theories

To expose students to modern critical theories

ENGL 364 Advanced English Grammar and Usage: To train students to use grammatical structures accurately.

ENGL365 Women writing: to interpret literary works by women and participate in discussions concerned with the experience of women

ENGL 366 Green Literature

Course Outcome: To create Environmental Consciousness through a study of Literature

GE-2 ENGL 367- Indian Culture Through Literature

TAGORE GOVT ARTS AND SCIENCE COLLEGE PUDUCHERRY B.A. FRENCH PROGRAM OUTCOME

Bachelor of Arts in French is a three year undergraduate course offered by TGASC affiliated to Pondicherry University. It is a regular full-time course. The eligibility for admission to the course is successful completion of HSC from a recognized educational board with French as second language.

The program is divided across six semesters of six months each. The objectives of the program are as follows:

1. To enable the students acquire proficiency and fluency in French language.
2. To familiarize the students with French grammar rules, French literature (from Middle Ages to twentieth century), Francophone literature and History of France.
3. To enable the students acquire translation techniques (From English to French and vice-versa)
4. To familiarize the students with world of business, tourism and French civilization.
5. To make the students learn preliminary concepts in field of linguistics.

COURSE OUTCOME


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FIRST SEMESTER

1. Course: Language I Subject code: LFRN 111

This course aims at revising the fundamental concepts in French grammar which the students have already learnt in their Higher Secondary Course. It also brings to light some aspects of French civilization and culture.

2. Course: DSC- 1A GRAMMAR-I Subject Code: FREN 111

This course aims at inculcating modern grammar rules in the minds of the students. It also teaches how to construct sentences which are grammatically correct.

3. Course: DSC- 2A History of France I Subject Code: FREN 112

This course aims at familiarizing students with historical facts and events which concern not only France but other European countries. It deals with the origins of people of ancient France (La Gaule) up to the century of enlightenment.

5. Course: AECC-I Public administration Subject Code: PADM 113

This course enables the students to identify the core mechanisms of public administration. They will be capable of explaining how different environments impact public policies and administration.

SECOND SEMESTER

Course: Language II Subject Code: LFRN 121

This course aims at imparting French grammar rules which will enable the students construct grammatically correct sentences. Further, emphasis will be made on civilizational and cultural aspects of French people.

Course: DSC-1B GRAMMAR II Subject Code: FREN 121

This course deals with imparting writing skills. It will be a continuation of the grammatical concepts learnt in the previous semester.

Course: DSC-2B History of France II Subject Code: FREN 122

This course deals with important historical and social events which took place in France. The course covers the period from French Revolution to 5th Republic.

Course: AECC-II Environmental Studies Subject Code: ENVS 123

This course will provide the students with intellectual flexibility necessary to view environmental questions from multiple perspectives. Students will be able to solve problems systematically and creatively. They will have foundational knowledge to take sound decisions in their lives as well as to enter a career related to environmental studies.

THIRD SEMESTER

1. COURSE: LANGUAGE – III SUBJECT CODE: LFRN 231

This course aims at imparting French grammar rules to students so that they become capable of constructing grammatically correct sentences in French. Emphasis is laid on French culture and civilization.

2. COURSE: DSC-1C Study of selected literary texts-I (Middle Ages and 16th century)-FREN 231

This course aims at imparting important knowledge about some French authors of Middle Ages and 16th century. It will familiarize the students with their philosophies and thoughts.

3. COURSE: DSC-2C Study of selected literary texts-(17th century) SUBJECT CODE: FREN 232

This course aims at familiarizing the students with the thoughts and philosophy of some of the great French writers of the classical period.

4. COURSE: SEC-I Communication skills in hotel business SUBJECT CODE: FREN 233

This course enables the students acquire some techniques involved in hotel business. The objective is to familiarize the students with various situations in hotel business and catering.

FOURTH SEMESTER

1. COURSE: Language IV SUBJECT CODE: LFRN 241

This course aims at imparting some grammatical knowledge to students so as to enable them construct correct sentences in French. This will also enable them to talk in French.

2. COURSE: DSC-1D Study of selected literary texts-III (18TH Century) SUBJECT CODE: FREN 241.

This course aims at familiarizing the students with the most important movement of enlightenment, thoughts, style and philosophies of some French writers.

3. COURSE: DSC-2D Study of selected literary texts-IV (19TH Century) SUBJECT CODE: FREN 242.

The objective of this course is to make the students aware of the major literary movements and works of some of the great French writers.

4. COURSE: SEC II PROFESSIONAL COMMUNICATION SUBJECT CODE: FREN 243

The objective of this course is to make the students aware of the techniques of running an enterprise. The requisites of a good secretary, telephone operator, and an office are dealt in this paper.

FIFTH SEMESTER

COURSE: SEC-III Translation Techniques I Subject Code: FREN 351

This course intends to inculcate in the minds of the students some of the translation techniques. Students will be trained to translate texts (from English to French and vice-versa).

COURSE: DSE-1A Study of selected literary texts-V (20TH Century) Subject Code: FREN 352

This course intends to familiarize the students with the philosophies and ideologies of some great writers of 20th century.

COURSE: DSE-2A Linguistics – I Subject Code: FREN 353

This course introduces various aspects of French language, communication, some aspects of phonetics and phonology.

COURSE: DSE-3A French Culture I Subject Code: FREN 354

This course aims at inculcating some salient features of French civilization and culture in the minds of the students. They will also be capable of comparing Indian culture with French culture.

COURSE: DSE-4A Prose Subject Code: FREN 355

This course introduces a French fiction to students. It helps the students to understand the various aspects of French fiction.

COURSE: DSE-5A Study of selected short stories of Guy de Maupassant Subject Code: FREN 356

This course aims at introducing a great short story writer to students. Some stories will illustrate some of the practices followed in French families in 19th century and some will have references to the Franco – Prussian war of 1870.

COURSE: GE I General French For Communication Subject Code: FREN 357

This course is a generic elective course mainly meant for the students of other departments who want to learn French as a foreign language. Its aim is to make these students acquire communicative skills.

SIXTH SEMESTER

COURSE: SEC-IV Translation Techniques II Subject Code: FREN 361

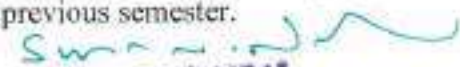
This course intends to introduce some other translation techniques to students. It is a continuation of the course in the previous semester.

COURSE: DSE-1B Drama Subject Code: FREN 362

This course intends to introduce the theme of absurdity in French theatre. It deals with the symbolic representation of totalitarianism in 20TH century.

COURSE: DSE-2B Linguistics II Subject Code: FREN 363

This course intends to impart knowledge about the various aspects of French language and communication. It is a continuation of the course in the previous semester.


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COURSE: DSE-3B FRENCH CULTURE II Subject Code: FREN 364

This course aims at introducing the students further to various aspects of the way of life of the French people.

COURSE: DSE-4B Francophone Literature Subject Code: FREN 365

This course intends to introduce an autobiographical French novel to the students. It tells the story of a young African child. Emphasis is laid on the social and cultural aspects of the country.

COURSE: DSE-5B Special Author: Charles Perrault Subject Code: FREN 366

This course intends to introduce some of the stories written by Charles Perrault to the students. These stories are fairy tales which form a new literary genre.

COURSE: GE II French through modern approach Subject Code: FREN 367

It is a generic elective course meant for the students of other departments who want to learn French as a foreign language. It is a tool to acquire communicative skills in French.

**Program Outcome
BA Economics**

The B A Economics course aims to impart to the students theoretical and empirical knowledge in the subject.

Course Outcome

DSC 1.Towards Understanding Economics (ECON 111)

The course intends to familiarize the students with the broad contours of economics and impart the knowledge of economics as a subject and basic understanding of economic concepts. After studying this paper the student will be able to understand the basic concepts of economics and equip oneself to understand the subject in greater detail, later semesters.

DSC 2.Statistical Methods I(ECON 112)

The objective of this course is to equip the students with primary statistical tools for analyzing economic problems and role of statistics in economics. After studying this paper the student will be able to understand how to collect appropriate data needed, manipulate and draw inferences, describe the concept of statistical averages, use and apply central tendency, dispersion, skewness, and kurtosis.

DSE 1. Population Studies (ECON S02)

The objective of this paper is to teach the students the importance, causes and impact of population growth and its distribution, translate and relate them with economic development. After studying this paper the students will be able to understand demographic changes in the world and their major determinants and evaluate the use of demographic concepts and population theories to understand contemporary socio-economic issues.

DSC 3.Microeconomics I(ECON 121)

The objective of this paper is to teach the students microeconomic concepts, and deal with concepts of consumer behavior. After studying this paper the students will be able to understand how consumers and firms make decisions in the market.

DSC 4. Mathematics for Economists I (ECON 122)

The objective of this course is to equip the students with primary mathematical tools for analyzing economic problems. Solve unconstrained optimization problems involving functions of single and multiple variables. Solve difference and differential equations. Perform basic matrix operations.



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including addition and subtraction, scalar multiplication, matrix multiplication, transposition and inversion.

Solve simultaneous equations.

DSE 3. Environmental Economics (ECON S03)

This course aims to impart knowledge about the issues relating to sustainable development, environment protection and pollution control measures. After studying this paper the students will be able to better appreciate and understand the importance and role of the environment in economic development.

DSC 5. Microeconomics II (ECON 231)

The objective of this paper is to teach the students how prices of various factors of production are decided. The students will also be introduced to the basic premises of normative economics-welfare economics. After studying this paper the students will be able to understand how prices of factors of production are determined in a competitive market.

DSC 6. Macroeconomics I (ECON 232)

This course is designed to make the students aware of the theoretical aspects of Macro Economics. The main objective of this paper is to introduce the student to the basic understanding of how the economy operates at the macro level. After studying this paper the students will be able to better understand the economy at the macro level.

DSC 7. Statistical Methods II (ECON 233)

The main objective of this paper is to demonstrate the basic concept of probability, theoretical distribution, probability theorems, sampling distribution and hypothesis testing. After studying this paper the student will be able to use some statistical techniques in research.

SEC 1. Economics of Insurance (ECON 234)

The objective of this course is to know the various types of insurance and insurance business in India, and to become aware of insurance legislation in India. On Successful completion of the course, the student will be able to understand the concepts and principles of insurance

DSC 8. Money and Banking (ECON 241)

The main objective of this paper is to teach the students the role of money in the economy, and to introduce the students to the various facts of the banking sector. After studying this paper students will have the knowledge and skills to understand several key models and concepts of monetary economics and banking theory

DSC 9. Macroeconomics II (ECON 242)

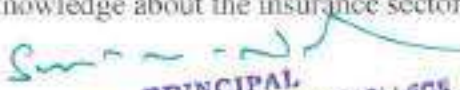
The main objective of this paper is to introduce the student to the basic understanding of how the economy operates at the macro level. This course equips the students to understand systems facts and the latest theoretical developments in Macroeconomics. After studying this paper the students will be able to better understand the economy at the macro level.

DSC 10. Mathematics for Economists II (ECON 243)

The objective of this course is to equip the students with mathematical tools for analyzing economic problems. This course equips the students to solve unconstrained optimization problems involving functions of single and multiple variables, and to solve difference and differential equations.

SEC 2. Economics of Insurance - Practice (ECON 244)

The objective of this course is to conduct a field survey among insurance holders and visit insurance companies in their locality to enhance their knowledge about the insurance sector. After


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completing the survey students are able to learn on their own, reflect on their learning and improve upon it.

DSC 11. International Economics I (ECON 351)

The main objective of this paper is to introduce the student to the theories of international trade and exchange rate determination, meaning and issues related to balance of payment and the role of WTO in international trade. After studying this paper the students will be able to better appreciate and understand why and how the trade between countries takes place and what the role of WTO is in international trade.

DSC 12. Public Finance I (ECON 362)

The main objective of this paper is to introduce the student to the basic understanding of and the role played by the Central government through its various economic policies in the economic development of the country. After studying this paper the students will be able to better appreciate and understand the economic policies of the Central government and their role in economic development.

DSC 13. Basic Econometrics (ECON 363)

The main objective of this paper is to introduce the student to the concept of various statistical methods and its uses in economics. After studying this paper the student will be able to understand the difference between economic and econometric models and they are able to use some statistical techniques in research.

DSC 14. Indian Economy I (ECON 354)

The main objective of this paper is to introduce the student to basic understanding of the Indian economy and measurement of various macroeconomic variables. After studying this paper the student will be able to understand the Indian economy better and will get some idea about the problems faced by the economy.

SEC 3. Entrepreneurial Development (ECON 355)

The main objective of this paper is to introduce the students about the evolution of Entrepreneurship, factors affecting entrepreneurial growth and describe the Entrepreneurship Development Programmes. After studying this paper the student will be able to know the parameters to assess opportunities and constraints for new business ideas and understand the systematic process to select and screen a business idea.

DSE 3. Development Economics (ECON S05)

The main objective of this paper is to make the students understand the aspect of the development process in low income countries and to provide with the essential tools and concepts of development economics. After studying this paper students will be able to understand what makes underdevelopment persist and what helps development succeed.

GE 1. Gender Studies (ECON 356)

The main objective of this paper is to introduce the students about the issues and challenges faced by women and to discuss the issues of gender discrimination. After studying this paper students will be able to understand Gender issues and its significance so that they can spread awareness among students and civil society against systemic gender discrimination.

DSC15 International Economics II (ECON 361)

The main objective of this paper is to introduce the students about the concept of Balance of Payments, foreign exchange rate and to discuss about the International Financial Institutions and India's Foreign Trade Policy. After studying this paper students will get an idea about the changes in



the composition as well as direction of foreign trade and understand the causes and effects of deficits in the balance of payments, measures adopted to correct the deficits and identify the need for having trade reforms

DSC 16. Public Finance II (ECON 362)

The Purpose of this course is to give an understanding of the role of state in fostering economic activities via budget and fiscal policies. This course enables the students to understand the various issues between the central and State Government. After studying this paper the student will be able to understand the changes in size and flexibility of state and central budget along with the role played by Finance

DSC 17. Indian Economy II (ECON 363)

The main objective of this paper is to make the students understand problems of Indian economy as well as the Puducherry Economy and analyse the basic features of the Puducherry Economy. After studying this paper the student will be able to understand the Indian economy and Puducherry economy better and will get some idea about the problems faced by the economy.

DSC 18. History of Economic Thought (ECON 364)

The main objective of this paper is to give ideas to the students about the systematic development of economic theories beginning from pre-modern and modern era. After studying this paper the student will be able to develop a chronological understanding of the development of economic thought and to relate the developments in different schools of thought with contemporary issues.

DSE 4. Indian Financial Institutions and Markets (ECON S08)

The main objective of this paper is to explain the broad features of Indian financial institutions and markets and to understand the conditions of financial markets and its impact in the economy. After studying this paper the student will be able to understand functioning of Financial institutions and markets and the changing role of the financial sector in the economy..

SEC 4. Entrepreneurial Development - Practice (ECON 365)

The objective of this course is to conduct a field survey among entrepreneurs in their locality to enhance their knowledge about entrepreneurship. After completing the survey students are able to learn on their own, reflect on their learning and improve upon it.

GE 2. Society and Economy (ECON S07)

This paper attempts to facilitate the students to relate socio-religious institutions and the economy and how these institutions determine people's access to productive resources. After studying this paper the student will be able to understand the importance of social institutions in economic decision making.


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Tagore Govt. Arts and Science College
Department of History
PROGRAMME OUTCOME

Sl. No.	CREDITS	Programme & Scheme	Year & Subject	Programme Outcome
1.	40 Credits in the I and II Semesters	UG Degree CHOICE BASED CREDIT SYSTEM (CBCS)	I B.A., History	- To provide quality education and knowledge of History for budding history professionals. - To make them competent in the field of history and contribute for social development. - To furnish a comprehensive understanding of History of India and world Civilizations as Discipline Specific Core Course (DSC). - To develop knowledge and ethics values, Ability Enhancement Courses (AECC) are imparted.
2.	40 Credits in III and IV Semesters	UG Degree (CBCS)	II B.A., History	- To inculcate consciousness of history of India during Muslim rulers period and British period. - To contribute good education in the field of freedom movement and European history - To implant knowledge about skill Enhancement courses (SEC)
3.	40 Credits in V and VI Semesters	UG Degree (CBCS)	III B.A., History	- To know about history of India after independence and world history. - Compulsory to study regional history. To insist the importance of Art and Architecture in India. - To acquire the knowledge of historical place, desirable historical tours are conducted.

Signature

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PURVA

Tagore Govt. Arts and Science College
Department of History
Course Out Come

Sl. No.	Year & Class	Name of the paper	Course Outcome
1.	I- BA I semester	History of India up to 650	To understand Ancient Indian History and natural boundaries of India.
		Introduction to Ancient civilization	To give comparative study of world civilization
		Introduction to public Administration	To develop the knowledge about the importance of public administration
2	I BA II semester	History of India 650-1526	To import Indian history during sultans period
		Meddle age in Europe 476 - 1453	To understand Roman empire and its impacts of barbarian and religion activities
		Environmental studies	To insist multi-disciplinary nature of environment
3	II BA III semester	History of India 1526-1707	To know about Marathas
		History of Europe 1453-1789	To discuss about geographical discoveries in the world and industrial revolution
		Introduction to	To define fundamental

		Human rights	rights, women rights and state human right commission
4	II BA IV sem	History of India 1707-1857	• European trading companies and socio-religious changes in India
		History of Europe 1789-1871	• To know European balance of power and unification of states
		Indian Constitution	• History of Indian constitution and distribution of powers
5	III BA V sem	Introduction of Archaeology	• To know the sources material from archaeology for history.
		History of Europe 1858-1947	• To know Indian national movement
		History of the world 1871-1945	• To know military power, Nazi, Fascism and communism
		History of South India upto 1335	• To know the ancient and medieval history of south India
		History of Pondicherry up to 1674	• To understand the regional importance and history
6	VI sem	Introduction to Indian Art and Architecture	• To know the Indian art and culture
		India since Independence 1947-2000	• Unification of India, Indian government and green revolution, foreign relation
		International	• Role of US and USSR

		relation 1945-2000	after world war. NATO, UN, CENTO
		History of South India 1336-1800	• Rise of new power Vijayanagar, European influence and rise of Marathas, nayaks and navabs
		History of Pondicherry 1674-1954	• Europe colonization, trade, and power domination. Freedom movement and cultural translation of regional people

 25/9/23



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PUDUCHERRY- 605 003.

TAGORE GOVT. ARTS AND SCIENCE COLLEGE

Department of Sociology

PROGRAMME OUTCOME: (B.A. Sociology)

This programme (B.A. Sociology) is designed to produce graduates who can engage the world thoughtfully, critically, and creatively. The coursework will not only provide a solid base of sociological knowledge and a set of skills to collect and evaluate information, but also assignments, readings, and classroom discussions for students will foster a sense of engagement as citizens committed to making the world more humane and livable.

- Student will demonstrate knowledge of core sociology concepts.
- Student will demonstrate knowledge of how to use theory to conceptualize a sociological problem.
- Student will demonstrate the ability to communicate sociological knowledge to others.
- Student will develop an ability to use social scientific research methods to address sociological questions.
- Student will develop the knowledge, skill and attitude necessary to be engaged member of the community.
- Student will possess analytical skills in areas such as policy analysis, administration analysis and problem solving.

COURSE OUTCOME:

SEMESTER - I

SOC 111 INTRODUCING SOCIOLOGY - I

Course Outcome: This course will provide a formal introduction to the discipline of sociology. It will introduce the students to the basics of sociology in order to show how sociology is premised on the idea of social/society as an object of study.

SOC 112 INDIAN SOCIETY

Course Outcome: This course will introduce students to the social structures of Indian society. It will also familiarize the students on the basic social institutions specific to Indian society, and also the changes these institutions have undergone over time.

SEMESTER - II

SOC 121 INTRODUCING SOCIOLOGY-II

Course Outcome: This course will enable the students to understand the basic concepts in Sociology. It will provide scope for students to understand the various social phenomena with sociological concepts.

SOC 122 SOCIAL PROBLEMS IN INDIA

Course Outcome: This course will sensitize students to the sociological perspective of understanding the emergence, prevalence and consequences of social problems in India. It will also provide a greater understanding of the Indian situation along with the policy orientation to alleviate current issues encountering Indian society.


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SEMESTER - III

SOC 231 HISTORIES OF SOCIOLOGICAL THINKERS

Course Outcome: The course will expose students to the classical sociological tradition. The key outcome of this course is to acquaint students with the contributions of founding fathers in the emergence of sociology as a discipline.

SOC 232 MEDICAL SOCIOLOGY

Course Outcome: This course will offer sociological inputs for the understanding of social interactions and relationships centering around healthcare. It provides an understanding of the institution of diagnosis, treatment and medical care.

SOC 233 UNDERSTANDING SOCIAL PROBLEMS TODAY

Course Outcome: This course will familiarize students to the current trends and implications of contemporary issues faced by the Indian society. This course will also sensitize the students about the causes and consequences of the contemporary problems and measures and strategies to alleviate them.

SEMESTER - IV

SOC 241 FOUNDERS OF INDIAN SOCIOLOGY

Course Outcome: This course will provide understanding of different theoretical perspectives on Indian Society from late 19th Century to the end of 20th century and their role in shaping the field of sociology. This course familiarizes students about the biography, institutional history, contribution and critical assessment of the Indian sociologists.

SOC 242 SOCIAL CHANGE AND DEVELOPMENT

Course Outcome: This course will provide conceptual and theoretical understanding of social change and development. It further enhances the knowledge of students on social change and development in Indian context.

SOC 243 DOING SOCIAL SURVEY

Course Outcome: This course will empower the students with knowledge as well as hands-on experience in designing and carrying out social survey. This course will provide inputs to equip students to serve as research investigators as well as conduct data collection independently.

SEMESTER - V

SOC 351 CORPORATE SKILLS

Course Outcome: This course will enable students to understand the structure and process of formal organizations as well as equip them with skills necessary for engaging in such organizations. This course will also enable the students to acquire the acumen of working in and with such organization.

SOC 352 RURAL SOCIOLOGY

Course Outcome: This course will provide a comprehensive understanding of the rural society, polity and economy. It will also introduce the students to rural development policies and programmes.

SOC 353 CRIMINOLOGY

Course Outcome: This course will introduce the students to the nature, extent, causes, and control of criminal behavior in both the individual and in society. This course will also familiarize the students

about the incidence, forms, causes and consequences of crime, as well as social and governmental regulations and reaction to crime.

SOC 354 URBAN SOCIOLOGY

Course Outcome: This course will pay special attention to the emergence and growth of Urban Sociology. It will give an idea of the consequences of urbanization, social structure in Urban Society and challenges in urban governance.

SOC 355 WOMEN AND SOCIETY

Course Outcome: The course will introduce the students to basic ideas concerning the construction of gender in society. It will explore the varied forms of violence against women and examines the differing ways in which inequality between sexes has been explained. It will also introduce the students to the concerns of the women's movement in India.

SOC 356 INTRODUCTION TO SOCIAL RESEARCH

Course Outcome: This course will give a basic understanding of social research and method of research. It will familiarise the students with different methods of data collection which will help them to undertake empirical research independently.

SOC 357 SELF AND DEVELOPMENT

Course Outcome: This course will provide inputs to students on self-development. The course will also offer a sociological understanding of personality, apart from helping students to understand factors that contribute towards motivation, leadership and personality development.

SEMESTER - VI

SOC 361 SOCIAL STATISTICS

Course Outcome: This course will make a practical exposition of methods of statistics to student. It will enable students to understand the basic concepts of social statistics and summarize numeric data by computing descriptive statistics and also create tables and graphs. The student will also be able use SPSS and identify an appropriate technique for a given set of variables and research questions.

SOC 362 POPULATION AND SOCIETY

Course Outcome: The course will introduce the students to the idea of Population as a social phenomenon. It will acquaint the students to the demographic features and trends of Indian Society vis-à-vis World Population, population control measures and their implementation.

SOC 363 TOURISM AND SOCIETY

Course Outcome: This course will introduce students to the social dimensions of tourism as an endeavour and industry, tourism is a social phenomenon and provide knowledge on the impact of tourism on society and culture.

SOC 364 INDUSTRIAL RELATIONS AND LABOUR WELFARE

Course Outcome: This course will provide a scientific understanding of Industrial Society. It will help the students to understand the nature of Industrial problems. It will also introduce the students to different methods and ways of preventing and settling Industrial disputes.

SOC 365 MASS MEDIA AND SOCIETY


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Course Outcome: The course will provide an understanding of different types of media and forms of communication to the students. It will provide a basic understating of relationship between media and society and also enable students to analyze the changes in media, society and culture.

SOC 366 EDUCATION AND SOCIETY

Course Outcome: This course will introduce the students to sociology of education in India. It familiarize the students to the meaning, social functions, and alternative forms of education, development of education in India and also to understand the developments and the problems in the education system today.

SOC 367 SCIENCE, TECHNOLOGY AND SOCIETY

Course Outcome: This course will introduce students to the social aspects of science and technology. It will provide an understanding of the inter-phase of science and technology with society.

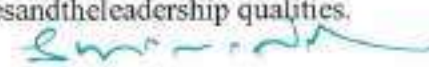
TAGORE GOVERNMENT ARTS AND SCIENCE COLLEGE

DEPARTMENT OF PHILOSOPHY

B.A. PHILOSOPHY

Programme Outcomes

1. Students would have got well acquainted with the epistemological, metaphysical, axiological and social issues.
2. Students would have learnt about and comprehended the great thoughts of great philosophers – East and West, the factors that shaped their thoughts, the impact their thoughts had on the society on various fields and the relevance of their thoughts in the present scenario.
3. Students would have acquired the philosophical bent of inquiry.
4. Students would have developed interest in reading philosophy-oriented books, attending or watching philosophy-oriented lectures, debates and discussions.
5. Students would have become capable of keen observation or close watch at happenings in and around them, analyzing and making comparative analysis of any matter from different perspectives and to arrive at one's own conclusion and act accordingly for the betterment of the society.
6. Students would have acquired a very good logical reasoning and critical thinking so as to face any real-life situation including dilemmatic ones.
7. Students would have gained the strength of articulation without hesitation and is ready for any healthy interaction or discourse.
8. Students would have got an exposure of their rich tradition, heritage and culture and the thought underneath and to be a staunch proud citizen.
9. Students would have realized their inner strength and make efforts to actualize their hidden potentials.
10. Students would have inculcated in them the social responsibilities and the leadership qualities.


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11. Students would have set up their mind to pursue higher studies for placement in the academic line.
12. Students would become prepared to appear for different competitive exams and to boldly face interviews for placement in the public as well as private sectors.
13. Students would think in the line of contributing to the society.
14. Students would start exploring every possibility and grab the opportunities to realize the above-mentioned ones.
15. Students would have learnt to appreciate life and values. To put in the words of Francis Bacon, "Seek ye first the good things of the mind, and the rest will either be supplied or its loss will not be felt."

B.A. PHILOSOPHY

Programme Specific Outcomes

1. This Programme develops the faculty of understanding of the students. It develops the ability of the students to think logically and essentially which is absolutely essential in realising the principles and theories of Philosophy.
2. This Programme enables the students to develop an insight into the intricacies of the subject and prepare them for more advanced courses on subject in the universities both national and international.
3. This Programme enriches one's thinking skill and sharpens one's analytical abilities. It develops the ability to think logically, to analyse and solve problems, to assess proposed solutions, to write and speak clearly, attending to details.
4. This Programme helps a student to gain the ability so that they can make themselves to become a proper social being.
5. This Programme brings the important questions epistemological, metaphysical, ethical, social and what not to the table and works towards an answer. It encourages us to think critically about everything.
6. This Programme enhances in a way no other activity does, to think critically and evaluate arguments and truth claims, improves reasoning and critical skills, teaches how to ask good questions from the worthless questions.

TAGORE GOVERNMENT ARTS AND SCIENCE COLLEGE

DEPARTMENT OF PHILOSOPHY

B.A. PHILOSOPHY

Course Outcome

SEMESTER – I

Course Code : DSC-1A

Subject Code : PHIL111

Title of the Paper : Indian Philosophy – I



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Objectives of the Paper:

1. Introduce philosophy in general and Indian philosophy in particular.
2. Learn about the specific characteristics of Indian philosophy which are not to be seen in the Western philosophy.
3. Learn about the Vedic and Upanishadic philosophies and the philosophies that arouse against those as a-vaidik/nastik philosophies.
4. Introducing the allied astik systems – Nyaya and Vaisheshika thereby introducing Indian logic to the students.
5. Understand that Indian philosophy is soteriological.

Course Code : DSC-2A

Subject Code : PHIL112

Title of the Paper : Western Philosophy – I

Objective of the Paper:

1. Introduce philosophy in general and the classification of its branches in the West.
2. Understand the epistemological, metaphysical and axiological issues.
3. Learn about the great thoughts of the great thinkers right from the ancient period to medieval period and modern period especially the continental rationalism.
4. Learn about the paradigm shift in the history of western philosophy.

SEMESTER – II

Course Code : DSC-1B

Subject Code : PHIL121

Title of the Paper : Indian Philosophy – II

Objective of the Paper:

1. Learn about the other allied astik systems – Samkhya and Yoga, and the other systems such as Mimamsa and Vedanta.
2. Understand the strong arguments that take place between pluralism, dualism and monism.
3. Learn about Saiva Siddhanta which originated in the Tamizhland.
4. Understand that Indian philosophy is soteriological.

Course Code : DSC-2B

Subject Code : PHIL122

Title of the Paper : Western Philosophy – II

Objective of the Paper:

1. Critically analyze the Continental rationalism.
2. Learn about the great thoughts of the great thinkers of the modern period especially the British empiricism.
3. Understand how the German philosopher Immanuel Kant approaches both the rationalism and the empiricism and also arrive at a synthesis.
4. Understand how the German philosopher Hegel paves the path to Karl Marx.

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SEMESTER – III

Course Code : DSC-1C

Subject Code : PHIL231

Title of the Paper : Contemporary Indian Philosophy

Objective of the Paper:

1. Learn about the characteristics/features of contemporary Indian philosophy by comparing and contrasting with the classical Indian philosophy.
2. Learn about the factors that influenced in the shaping of the thought of the contemporary Indian philosophers.
3. Understand the great thought of the great Indian philosophers like Swami Vivekananda, Rabindranath Tagore, Mahatma Gandhi, and others.
4. Understanding the relevance of the thought of the contemporary Indian philosophers in the present scenario.

Course Code : DSC-2C

Subject Code : PHIL232

Title of the Paper : Contemporary Western Philosophy

Objective of the Paper:

1. Learn about the characteristics/features of contemporary Western philosophy by comparing and contrasting with the modern Western philosophy.
2. Learn about factors that influenced in the shaping of the thought of the contemporary Western philosophers.
3. Understand the great thought of the great Western philosophers like Russell, A.J. Ayer, Wittgenstein, William James and Jean Paul Sartre.
4. Understand the influence of the thought of these philosophers that exercise even in the recent philosophical trends.

Course Code : SEC-1

Subject Code : PHIL233

Title of the Paper : Yoga and Philosophy of Life

Objective of the Paper:

1. Learn about the origin of yoga.
2. Understand how yoga connects the individual with the Universal.
3. Understand the different forms of yoga and the subtle differences in them.
4. Introduce the tradition of Tamil Siddhas.

SEMESTER – IV

Course Code : DSC-1D

Subject Code : PHIL241

Title of the Paper : Theoretical Ethics


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Objective of the Paper:

1. Understand the meaning, subject matter and scope of ethics.
2. Learn the differences and limitations between determinism and free-will.
3. Acquire knowledge of different theories of judging human conduct.
4. Learn about the four 'purusharthas' to be obtained in an Indian life span.

Course Code : DSC-2D

Subject Code : PHIL242

Title of the Paper : Political Philosophy

Objective of the Paper:

1. Learn the Western political thoughts from Socrates to Karl Marx.
2. Understand how humans came together to form a socio-political setup.
3. Learn different theories in the Western political philosophy.
4. Able to analyze, judge and appreciate different theories.

Course Code : SEC-2

Subject Code : PHIL243

Title of the Paper : Western Logic

Objective of the Paper:

1. Understand the importance of logic in all walks of human life.
2. Learn the deductive and inductive reasoning and develop reasoning ability.
3. Learn the modern development of logic.
4. Able to evaluate any argument and able to construct valid arguments.

SEMESTER – V

Course Code : SEC-3

Subject Code : PHIL351

Title of the Paper : Critical Thinking

Objective of the Paper:

1. Understand that this is an extension of logic and its unavailability.
2. Understand the language and patterns of reasoning.
3. Develop the ability to clarify and interpret ideas on scientific methods.
4. Capable of looking at things from different perspectives and then judge.

Course Code : DSE-1A

Subject Code : PHIL352

Title of the Paper : Philosophy of Sri Aurobindo

Objective of the Paper:

1. Learn the factors that influenced in shaping of Sri Aurobindo's philosophy.
2. Understand the philosophical ideas (Integral Non-dualism) of Sri Aurobindo.
3. Understand the mission of his vision.


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4. Learn about the tools she applied to achieve the goal of his mission.

Course Code : DSE-2A

Subject Code : PHIL353

Title of the Paper : Philosophy of Mahatma Gandhi

Objective of the Paper:

1. Learn the factors that influenced in shaping of Gandhian philosophy.
2. Understand the philosophical ideas of Mahatma Gandhi.
3. Understand the mission of his vision.
4. Learn about the tools she applied to achieve the goal of his mission.

Course Code : DSE-3A

Subject Code : PHIL354

Title of the Paper : Philosophy of Thiruvalluvar

Objective of the Paper:

1. Learn about the book, its author, its universal applicability as a book of conduct.
2. Understand the epistemological, metaphysical and ethical views present in it.
3. Develop a determination to follow the ideas in one's life.

Course Code : DSE-3A

Subject Code : PHIL355

Title of the Paper : Philosophy of Religion

Objective of the Paper:

1. Learn the basics of religions such as God, Soul, Cosmology, Problem of Evil, Freedom of the Soul and other related ones.
2. Learn how different religions deal with the above matters in their own way.
3. Develop a pride of one's own religions simultaneously appreciating others.
4. Develop a Secular outlook.

Course Code : DSE-3A

Subject Code : PHIL356

Title of the Paper : Human Rights from an Ethical Perspective

Objective of the Paper:

1. Understand what exactly the human rights are and the problem with human rights.
2. Learn to look into the problem of human rights from an ethical perspective.
3. Understand the two models of value judgment.



4. Understand the link between ethical relativity and the relativity of human rights.

Course Code : GE-1

Subject Code : PHIL357

Title of the Paper : Indian Culture

Objective of the Paper:

1. Understand what culture is, how culture is classified and what the difference between culture and civilization are.
2. Learn different religious cultures right from the folk religious culture to the varied well-organized religious culture.
3. Understand and appreciate the cultural symbols.
4. Uphold the magical slogan 'Unity amongst Diversity' for the cause of National Integration in building One Nation.

SEMESTER – VI

Course Code : SEC-4

Subject Code : PHIL361

Title of the Paper : Applied Ethics

Objective of the Paper:

1. Clarity that this is an extension of logic, critical thinking and ethical theories.
2. Learn what the ethical problems are that exist in the society one lives in.
3. Learn to apply logical reasoning and critical thinking on the ethical issues from different theoretical perspectives in ethics.
4. Inculcate in him the sense of responsible citizen.

Course Code : DSE-1B

Subject Code : PHIL362

Title of the Paper : Philosophy of Rabindranath Tagore

Objective of the Paper:

1. Learn the factors that influenced in shaping of Tagore's philosophy.
2. Understand the philosophical ideas of Tagore.
3. Understand the mission of his vision.
4. Learn about the tools he applied to achieve the goal of his mission.

Course Code : DSE-2B

Subject Code : PHIL363

Title of the Paper : Introduction to Thinkers of Social Reform

Objective of the Paper:

1. Understand the factors that had sowed the seed for reformation in thoughts.
2. Understand the ideas of the social reformist thinkers.


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3. Able to analyze and judge the changes their ideas had brought in this society.

Course Code : DSE-3B

Subject Code : PHIL364

Title of the Paper: Philosophy of Mahakavi C. Subramanya Bharathi

Objective of the Paper:

1. Learn about Bharathiar's life, his works and his multifaceted personality.
2. Understand the philosophical and political foundations in his writings.
3. Understand his socialist and feminist thoughts.
4. Able to appreciate the aesthetic sense of the great poet.

Course Code : DSE-3B

Subject Code : PHIL365

Title of the Paper : Philosophy of Education

Objective of the Paper:

1. Understand the two different stands of education:
 - i. Education is nothing but actualization of the hidden potential.
 - ii. Education is imparting something new.
2. Learn the Western philosophical perspectives on education.
3. Learn the Indian philosophical perspectives on education.

Course Code : DSE-3B

Subject Code : PHIL366

Title of the Paper : Introduction to Indian Epistemology

Objective of the Paper:

1. Treat separately the Indian epistemology.
2. Studying general the various sources of knowledge and in-depth the sources of knowledge namely perception and inference from different perspectives.
3. Learn the different theories of Truth from different perspectives.
4. Understand the different theories of Error from different perspectives.

Course Code : GE-2

Subject Code : PHIL367

Title of the Paper : Feminist Philosophy

Objective of the Paper:

1. Attempt to understand what feminism is, the need for feminism and the diversity of feminist thinking.
2. Learn the different 'isms' in the feminist thought.
3. Learn about the different waves of feminism.
4. Overcome the gender inequality.


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Puducherry - 605 006

TAGORE GOVT. ARTS & SCIENCE COLLEGE, PUDUCHERRY
DEPARTMENT OF TOURISM

Program Outcome:

The program is designed to educate and enrich students with knowledge and expertise relating to tourism, travel, and hospitality industry. After the completion of the program, students will be equipped with the skills in

- • Tour operations
- • Event management
- • Hospitality operations
- • Entrepreneurship skills and knowledge to set up their own tourism enterprises
- • Grooming and Personality Development

Students will also imbibe with socio-cultural and environmental teachings on tourism and hospitality sector and make them principled, socially responsible and creative leaders.

SEMESTER – I

Subject code: **BBAT 111**

Name of the paper: **Tourism concepts and practices**

Credits: 6

Objective:

This module introduces students the meaning and basic understanding of tourism by looking into the history and development of tourism and its management.

Learning outcome:

Students will learn and understand the meaning, historical development, types and management of the tourism industry.

Subject code: **BBAT 112**

Name of the paper: **Tourism resources of India**

Credits: 6

Objective:

To understand the meaning and nature of tourism products and to familiarise the students about the major attractions in the country.

Learning outcome:

Students will become familiar with the various tourism products of the country and will also be able to identify potential resources for tourism.

SEMESTER – II

Subject code: **BBAT 121**

Name of the paper: **Tourism geography**

Credits: 6

Objective:

To provide a comprehensive introduction to the interrelationship between tourism, leisure and recreation and the different aspects of geography to offer insight into the demand, supply, planning, destination management and impacts of tourism and recreation.

Learning outcome:

Students will learn

- The interrelationship of the five themes of geography with tourism,
- The geographical resources important for tourism,
- Time zones and time calculation and
- The geographical flow and movement of tourists


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Subject code: **BBAT 122**

Name of the paper: **Travel agency and tour operations**

Credits: 6

Objective:

To help students learn about the concept and functions of travel agents and tour operations and the functional aspects of different departments in an agency.

Learning outcome:

Students will become aware of the basic functions of tour operations and can also adopt those methods for local tour planning and for further applications.

SEMESTER – III

Subject code: **BBAT 231**

Name of the paper: **Tour itinerary planning and design**

Credits: 3

Objective:

This paper will help students learn how to prepare itineraries, apply cost and set prices for various tours and circuits.

Learning outcome:

This will make the students able to plan, design and construct itinerary, calculate cost and also select effective pricing strategies.

Subject code: **BBAT 232**

Name of the paper: **Business communication**

Credits: 3

Objective:

This paper will look into the dynamics of business communication and helps provide an understanding of the relevant features of professional communication in the workplace.

Learning outcome:

They will learn the importance of communication in an organization, the level of communication and other professional techniques of communication.

Subject code: **BBAT 233**

Name of the paper: **Tourism organization**

Credits: 6

Objective:

This paper enhances knowledge and skills on the various associations including trends and contemporary issues in the travel industry. It demonstrates about the various state tourism boards influencing the tourism industry including setting up of travel agencies and legal aspects in travel and tour operations.

Learning outcome:

Student develops knowledge and skills of tour operator's products which includes travel, transfer and accommodation planning. They will get knowledge about the various active organizations involved in the active development of the travel and tour operations across the globe. They will get equipped then with skills of how to manage tour and travel related procedures.

Subject code: **BBAT 234**

Name of the paper: **Basics of hotel operations**

Credits: 6

Objective:

To introduce students into the working of the tourism hospitality industry with emphasis on the accommodation sector

Learning outcome:

Students will learn the basic of accommodation operations and the various departments in hotel and their importance.


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Subject code: **BBAT 235 SEC – 1**

Name of the paper: **Internship I**

Credits: 2

Objective:

1. The Objective of this assessment is to enable students to develop and relate theory to practice.
2. To provide students with the basic knowledge of research that will aid them in preparing and writing of internship reports.

Learning outcome:

1. Internship is another practical exposure where students will learn and get hands on experience on the working of various departments in travel agency, Event Company and other related organizations.
2. They will learn the basic knowledge of preparing and presenting report.

SEMESTER – IV

Subject code: **BBAT 241**

Name of the paper: **Softskills and personality development**

Credits: 3

Objective:

To familiarise students with the skills of personal grooming and positive attitudes like punctuality, team bonding and discipline.

Learning outcome:

Students will be able to develop the skills of personal grooming and other positive attitudes required for their future career.

Subject code: **BBAT 242**

Name of the paper: **Principles of Management**

Credits: 3

Objective:

To provide fundamental knowledge and understanding on the various concepts, theories and practices of management

Learning outcome:

Students will understand the fundamental knowledge of management, familiar with the management practices and also able to apply them in classroom activities etc.

Subject code: **BBAT 243**

Name of the paper: **Human resource management in Tourism**

Credits: 6

Objective:

To help students understand the importance of Human Resource Management in the attainment of an organizations strategic goals as well as workforce development.

Learning outcome:

Students will learn the importance human resource management in an organization and the of course welfare of the employee and their development and growth in the industry.

Subject code: **BBAT 244**

Name of the paper: **Airlines and airport management**

Credits: 6

Objective:

This paper helps students to understand the air transportation system, to learn about the structure and facilities of an Airport, to examine the various activities in the Airport and to develop various skills in the Airline industry like passenger handling

Learning outcome:

Students will be able to gain an understanding of the concepts, related to the Aviation business which helps to possess a career in Aviation Industry.

Subject code: **BBAT 245 SEC – 2**

Name of the paper: **Computer applications in Tourism**



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Credits: 2

Objective:

This paper will introduce students into the basic use of computer operating system like Windows and computer software for word editing, presentations and data entry.

Learning outcome:

Students will learn the basic use of computer, Microsoft office, preparation of power point presentation and word document.

SEMESTER – V

Subject code: **BBAT 351 SEC – 3**

Name of the paper: **Internship II**

Credits: 2

Objective:

1. The Objective of this assessment is to enable students to develop and relate theory to practice.

2. To provide students with the basic knowledge of research that will aid them in preparing and writing of internship reports.

Learning outcome:

1. Internship is another practical exposure where students will learn and get hands on experience on the working of various departments in various Hotel Industry, Resorts and other related organizations.

2. They will learn the basic knowledge of preparing and presenting report.

Subject code: **BBAT 352**

Name of the paper: **Front Office Operations**

Credits: 5

Objective:

To introduce students into the foundation of front office operations in hotels, car rentals and tour agencies

Learning outcome:

Through this paper, students learnt about front desk operations, reservations, check-in check-out, billing, audit etc. in hotel and any related organizations.

Subject code: **BBAT 353**

Name of the paper: **Travel Documentation**

Credits: 5

Objective:

To introduce students into the foundation of front office operations in hotels, car rentals and tour agencies

Learning outcome:

Through this paper, students learnt about Travel Documentation and Formalities, Travel Regulation, Passport, Visa, Health Regulations and Currency Regulations.

Subject code: **BBAT 353**

Name of the paper: **Travel Documentation**

Credits: 5

Objective:

To introduce students into the foundation of front office operations in hotels, car rentals and tour agencies

Learning outcome:

Through this paper, students learnt about Travel Documentation and Formalities, Travel Regulation, Passport, Visa, Health Regulations and Currency Regulations.

Subject code: **BBAT 354**

Name of the paper: **Tourism Economics**

Credits: 5

Objective:


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To introduce students to the Tourism Economics that studies the economic effects of tourism activity, Expenditure decisions, Investment decisions, Structure and organization of the markets
Learning outcome:

Through this paper, students learnt to identify the characteristics of tourism economy, tourism demand and supply, economic characteristics of the tourism product and characteristics of the tourism market.

Subject code: **BBAT 355**

Name of the paper: **Principles of Accounting**

Credits: 5

Objective:

To understand the concepts of accounting and finance and help the students in the purpose of application of accounting procedures in tourism business

Learning outcome:

Students will learn accounting like book keeping, journal and other financial skills required for running business.

Subject code: **BBAT 356**

Name of the paper: **National Tour**

Credits: 5

Objective:

1. To give students practical exposure and to familiarize them on important tourist destinations of the country and to document their experience and findings.
2. To provide students with the basic knowledge of research that will aid them in preparing and writing of Tour reports.

Learning outcome:

1. Through fieldtrip students will be exposed to different tourism destinations and organizations and will learn the various ways of promoting and sustaining the resources and be able to document their experience also.
2. They will learn the basic knowledge of preparing and presenting report.

Subject code: **BBAT 357 GE-1**

Name of the paper: **Tourism Entrepreneurship**

Credits: 3

Objective:

To provide the students basic knowledge of entrepreneurship and entrepreneurial skills required for starting tourism business.

Learning outcome:

They will learn the basic entrepreneurial skills for setting up and starting any tourism business from site planning to financial planning and venture capital Funds.

SEMESTER – VI

Subject code: **BBAT 361**

Name of the paper: **Communicative French**

Credits: 2

Objective:

To provide the students basic language skills and holistic development of communicative abilities that would allow students to carry out basic communicative transactions like to introduce themselves and others, describe places, talk about their surroundings, express their likes and interests among other things.

Learning outcome:

1. Reading simple texts and answering questions on them.
2. Equip students to write about subjects pertaining to his/her immediate environment.

Subject code: **BBAT 362**

Name of the paper: **Sustainable Tourism**


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Credits: 5

Objective:

To look into the principles of sustainable tourism practices in creating viable and sustainable opportunities that limit the negative impacts of tourism related activities on the environment while improving the lives of local people living in the area.

Learning outcome:

They will learn the basic principles, concept and practices of sustainable tourism development and to identify tools to minimize impacts at the destinations.

Subject code: **BBAT 363**

Name of the paper: **Destination Planning**

Credits: 5

Objective:

To give a clear concept on the basic necessary conditions required at the destination and all the structural facilities needed for the meaningful and successful launching of a tourist destination.

Learning outcome:

Students will be familiar with the essential conditions required for developing destination, type of infrastructures and facilities and government policies and rules applicable.

Subject code: **BBAT 364**

Name of the paper: **Tourism Marketing**

Credits: 5

Objective:

To familiarize students with the principles of marketing and their applicability in the tourism industry by looking in the different characteristics of tourism marketing and identifying strategies in travel sale and promotion.

Learning outcome:

Students will become aware of the applications of marketing concept in tourism and the basic of service marketing and how to market and promote tourism products.

Subject code: **BBAT 365**

Name of the paper: **Tourism and Technology**

Credits: 5

Objective:

This paper will familiarize students with the Reservation Systems and software used for ticketing, itinerary planning and other tourism operations.

Learning outcome:

Students will learn the important skills of reservations, booking, cancellation through CRS and other software like Amadeus, Galileo etc. Importance of Social Media in Tourism and Problems and Prospects of Tourism Technology

Subject code: **BBAT 366**

Name of the paper: **Airfares and Ticketing**

Credits: 5

Objective:

1. To provide learner with a knowledge of air ticket an importance travel document
2. To make learner understand about the process of air ticketing
3. To create understanding about the basic requirement for issuing air ticketing
4. To provide information about upcoming innovation and technology in air ticketing

Learning outcome:

Students will learn about Airline Terminology, Ticketing, Types of Airfare, International Airfare construction and CRS.

Subject code: **BBAT 367**

Name of the paper: **Event Management**

Credits: 3

Objective:


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This paper will help the students to acquaint new knowledge of event management as an emerging discipline.

Learning outcome:

Students will learn the concept of event management, event planning, categorizations and organizing events in various fields.

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PROGRAMME OUTCOMES

PO1	This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements.
PO2	Capability of the students to make decisions at personal & professional level will increase after completion of this course.
PO3	After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all administration abilities of the Company.
PO4	Students can independently start up their own Business.
PO5	The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization.
PO6	Strengthens their capacities in varied areas of commerce and industry aiming towards holistic development of learners.
PO7	After completing their graduation learners develop a thorough understanding of the fundamentals in Commerce and Finance.
PO8	Demonstrate extensive and coherent knowledge of commerce and its applications in real business world
PO9	Understanding of various concepts and theories providing strong academic foundation
PO10	Acquire various soft skills (like communication, organizing, and analytical) required to manage complete business situation as well as life situations
PO11	The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.


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PROGRAMME SPECIFIC OUTCOMES

PSO1	The students can get the knowledge, skills and attitudes during the end of the B.com degree course.
PSO2	By goodness of the preparation they can turn into a Manager, Accountant Management Accountant, cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents, Government employments and so on.
PSO3	Students will prove themselves in different professional exams like C.A., C S, CMA, MPSC, UPSC as well as other courses.
PSO4	Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication and computer.
PSO5	Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
PSO6	Students will be able to do their higher education and can make research in the field of finance and commerce.
PSO7	Enables students to demonstrate Progressive learning of various tax issues and tax forms related to individuals and businessmen and setting up their own business start-up.
PSO8	Students undergoing this programme will be equipped to the world of work, particularly, work of the future. The student will get a first-hand exposure of working in the real world.
PSO9	Students completing this programme will be able to develop managerial knowledge and tactical dexterity, with a broader skill set and encourages them to seek out audacious, innovative solutions for today's business.
PSO10	Completion of this programme will also enable the students to formulate business problems and provide innovative solutions thus, moulding them into future visionaries, management leaders that are compassionate yet efficient.


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COURSE OUTCOMES

SEM & SUB. CODE	SUBJECT NAME	COURSE OUTCOMES
SEMESTER I		
C C 01	FINANCIAL ACCOUNTING	1. Explain Journal, Subsidiary books, ledger, Trial Balance and rectifying journal entries. 2. Prepare Bank Reconciliation Statement and record the transactions 3. To Analyse and prepare the final accounts of a sole traders. 4. Familiarize with the various methods of depreciation as per AS 6
C C 02 -	BUSINESS ORGANISATION AND MANAGEMENT	1. Distinguish and explain each form of business; 2. Explain principles and functions of management implemented in the Organisation; 3. Identify and explain the managerial skills used in business; 4. Analyse the concept of Delegation of Authority, coordination, and control.
GE -I	BUSINESS ECONOMICS	1. Understand Basic problems of an economy and concept of business cycles; 2. Learn the theory of Demand and related concepts; 3. Understand the theory of supply and Consumer Behaviour; 4. Obtain knowledge about the theory of Production, Costs and Revenue; 5. Identify various types of Markets.
A E C C - I -	INTRODUCTION TO PUBLIC ADMINISTRATION	1. This would help them obtain a suitable conceptual perspective on Public Administration. 2. The growth of such institution devices as to meet the need of changing times. 3. The course also aims to instil and emphasize the need of ethical seriousness in contemporary Indian public administration within the Constitutional framework.
SEMESTER II		


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CC-3	ADVANCED ACCOUNTANCY	1. Prepare Receipts & Payment Account, Income & Expenditure Account and Balance Sheet for Non-Profit Organizations 2. Define single entry system, compare with double entry system and apply the accounting treatment in business 3. Explain the Fundamentals of Partnership accounts and Prepare accounts relating to admission of a partner. 4. Acquire knowledge on dissolution accounting 5. Using appropriate software for recording transactions and preparing accounts under Hire Purchase and Instalment Purchase System
CC 04 -	BUSINESS LAW	1. Examine the various provisions of the Indian Contract Act, 1872 2. Define various legal procedures under Sale of Goods Act, 1930 and apply the same in business. 3. Summaries the Negotiable Instruments Act 1881 4. Analyse the Provision of Information Technology Act 2000 5. Familiarise with Consumer Protection Act, 1986
GE - 02	INDIAN ECONOMY - PERFORMANCE AND POLICIES	1. Evaluate the magnitude, size, and dimensions of Indian economy and to study effect of privatization and liberalization on Indian economy; 2. Evaluate the role of population as an economic resource 3. Explain the role and contribution of agriculture in economic development of India; 4. Analyse contribution of industrial and service sector in Indian economy 5. Evaluate the recent trends in economic planning of India as well as role and functions of central bank and commercial banks.
A E C C - II	ENVIRONMENTAL STUDIES	1. Demonstrate skills in organizing projects for environmental protection and sustainability; 2. Analyse various projects and initiatives with respect to ecosystem restoration; 3. Interpret significance of carbon footprints; 4. Describe the environmental issues and their possible repercussions on the plant in the next few decades; 5. Summarize the green strategies and policies adopted by various business entities to preserve the environment.
SEMESTER III		
CC 05	PRINCIPLES OF COSTING	1. The Concept and Principles of Cost, Costing and Cost Accounting; 2. Compute unit cost and total cost of production and prepare cost statement; 3. Apply the various material control techniques 4. Compute the labour cost under different methods and allocate the overheads to various departments; 5. Prepare Reconciliation Statement

C C -06	GOODS AND SERVICE TAX (GST)	1. Explain concept, need, and utility of indirect taxes; 2. Understand and analyse the taxable event, i.e., supply under GST; 3. Describe the provisions relating to levy of GST; Identify exemptions for different types of goods and services; 4. Examine implications of input tax credit; 5. Explain the various procedures under GST; 6. Analyse provisions regarding penalties and interest and Prepare and file GST return online
C C 07	BUSINESS STATISTICS	1. Develop an understanding of the various averages and measures of dispersion to describe statistical data; 2. Explain the relationship between two variables through correlation and regression; 3. Explain the construction and application of index numbers to real life situations; 4. Analyse the trends and tendencies over a period of time through time series analysis.
C C 08	CORPORATE ACCOUNTING	1. Describe the rationale, merits, and demerits of issuing bonus shares for a company; 2. Prepare financial statements (Profit & Loss Account, Balance Sheet, etc.) using online software; and Prepare balance sheet after Internal Reconstruction of company; 3. Analyse the case study of major amalgamations of companies in India; 4. Describe the process of Holding companies.
D S E -1 (A)	BUSINESS ENVIRONMENT	1. Know and analysis different business environment 2. Conduct a business analysis of the local environment 3. Understand the major problems in Indian Economy 4. Know about five year planning and LPG on different sectors 4. Explain the concept of social and political responsibilities of Business
D S E - 1 (B)	E- BUSINESS	1. Explain the concept of E-business and its various aspects; 2. Acquire skills of designing a website for e-business; 3. Explain about e-commerce activities and its applications; 4. Comprehend about various payment gateway options and Assess the security issues and measures of e-business.
SEC - 01	BUSINESS COMMUNICATION	1. Know various forms of communication, communication barriers; 2. Comprehend a variety of business correspondence and respond appropriately; 3. Communicate in writing for various commercial purposes; 4. Use appropriate grammatical constructions and vocabulary to communicate effectively; 5. Use business language and presentation skills.


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SEMESTER IV		
C C 09	MANAGEMENT ACCOUNTING	1. Explain the Concepts and technique of Management Accounting and Preparation of the Financial Statements 2. Compute and construct the Balance sheet by using ratios 3. Prepare the Fund flow statement and to compare it with the balance sheet 4. Apply accounting Standard 3 in the preparation of Cash flow statement 5. Determine the working capital requirements of a business
C C 10	HUMAN RESOURCE MANAGEMNET	1. Develop necessary skills to prepare an HR policy to enable the employees attain work life balance; 2. Prepare a Human Resource Plan in an organisation; i) Prepare a report on job analysis; ii) Organize an induction programme in an organisation; 3. Analyse the applicability and use of different kinds of trainings strategies in real life scenarios; 4. Organize counselling sessions for employees in an organisation; i) Design incentive schemes for different job roles in an organisation;
C C 11	COMPANY LAW	1. Explain relevant definitions and provisions relating to issue of prospectus and allotment of shares; 2. To familiar with the provisions of Limited Liability Partnership Act 2008 3. Describe the framework of dividend distribution, Accounts of the company and Audit and Auditors of company; 4. Determine the role of Board of directors and their legal position and Develop the knowledge about the company meeting
C C - 12	SUSTAINABLE DEVELOPMENT	1. Explain key initiatives required to enhance the contribution of an organisation towards Sustainable Development; 2. Analyse the significance of various steps taken by UNDP to ensure Sustainable Development; 3. Assess the results of Smart Cities Mission Initiative of Government of India; 4. Explain the key achievements of National Programmes/Initiatives aligned with SDGs.
DSE – 02 (A)	PRINCIPLES AND PRACTICES OF AUDITING	1. Explain the basic concepts of auditing and differentiate it with accounting and investigation 2. Prepare audit programme and frame the audit procedure 3. Examine the vouchers relating to cash book 4. Familiarise with the provisions of Companies Act Regarding qualification, appointment, rights and duties of company auditor. 5. Apply the concept of Computer Assisted Auditing Techniques and Green Audit in auditing practice

DSE – 2 (B)	INTERNATIONAL BUSINESS	1. Explain the process of globalization, its impact on the evolution and growth of international business and to appreciate the changing dynamics of the diverse international business environment 2. Know the theoretical dimensions of international trade and intervention measures adopted; to appreciate the significance of different forms of regional economic integration and understand the concept of Balance of payment account and its components; 3. Explain the significance of different forms of regional economic integration and to appreciate the role played by various international economic organisations such as the WTO, UNCTAD, IMF and World Bank; 4. Assess international financial environment, and basic features of the foreign exchange market – its characteristics and determinants; 5. Examine the concept and form of foreign direct investment, and to create awareness about emerging issues in international business such as outsourcing and ecological issues.
SEC – 02	ARITHMETIC SKILLS	1. Acquire proficiency in using different mathematical tools (Ratio, matrices and mathematics of finance) in solving real life business and economic problems
SEMESTER V		
C C 13	INCOME TAX AND PRACTICES-1	1. Determine the residential status of individuals and to calculate the incidence of taxation 2. Compute income from salary by applying the provisions of income tax Act 1961 3. Compute income/loss from house property 4. Prepare Statement showing taxable income from business/profession 5. Assess capital gains and income from other sources.
C C 14	MONEY AND FINANCIAL SYSTEM	1. Explain the Meaning, Scope and functions of Banking Systems in India 2. Illustrate the recent trends in Banking and its services 3. Explain the Concept of Credit Creation Process
C C 15	METHODS AND TECHNIQUES OF COSTING	1. Prepare various budgets and to measure the performance of the business firm applying budgetary control measures; 2. Compute standard costs and analyse production cost preparing variance report; 3. Analyse cost, volume and profit and to solve short run decision making problems applying marginal costing and Break-Even technique; 4. Use spread sheets and Expert System for managerial decision making; 5. Analyse the role of ERP in Business Decision Making.


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C C 16 -	FUNDAMENTALS OF FINANCIAL MANAGEMENT	1. Explain the nature and scope of financial management; Assess the impact of time value of money in different business decisions; 2. Analyse capital budgeting process and apply capital budgeting techniques for business decisions; 3. Explain various capital structure theories and analyse factors affecting capital structure decisions; 4. Critically examine various theories of dividend, identify and analyse factors affecting dividend policy; and suggest sound dividend policy; 5. Design working capital policy based on the assessment of financial requirements and Compare CSR and Profitability
DSE -03 (A)	MARKETING MANAGEMENT	1. Explain the marketing concept, functions of marketing and marketing mix 2. Develop a new product and to apply the pricing strategies 3. Determine the channels of distribution for marketing products 4. Apply the various promotional strategies in marketing 5. Segment the market and apply the modern marketing techniques
DSE -03 (B)	ADVERTISING AND PERSONAL SELLING	1. Identify communication objectives behind advertising and promotions; 2. Explain various advertising and media elements in the advertising decisions; 3. Identify the ethical and legal issues of advertising; 4. Comprehend the importance and role of personal selling; 5. Explain the process of personal selling
SEC -03	COMPUTER SKILLS FOR BUSINESS	1. Acquire the theoretical knowledge in MS-Office 2. Create documents in MS-Word 3. Construct worksheet on MS-Excel 4. Prepare presentations using MS-Power Point and to Develop database management system using MS-Access 5. Explain the fundamentals and key components of Tally ERP 9 and to Create ledgers and groups in various modes.
SEMESTER VI		
C C 17	INCOME TAX AND PRACTICES- II	1. Apply the concept and procedure of set off and carry forward of losses 2. Analyse and compute deductions from gross total income 3. Explain the meaning of assessment and its procedure to compute tax liability 4. Compare PFAF with PFAOP and its procedure to compute tax liability 5. Classify the companies and its procedure to compute tax liability.


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C C 18	FUNDAMENTALS OF INVESTMENT	1. Demonstrate an understanding of, and be able to apply, fundamental investment analysis techniques 2. Apply methods and theories of finance to specific cases. 3. Understand about Portfolio management and financial derivative in India. 4. Know about equity and debt instrument 5. Create awareness about investor protection
C C 19	PRINCIPLES AND PRACTICES OF INSURANCE	1. Explain the Principles of Insurance 2. Compare and Contrast insurance with assurance and explain provisions relating to life insurance. 3. Analyse the principles of Marine Insurance. 4. Prepare Claim on fire insurance policies. 5. Apply the acquired skills in marketing of Life Insurance business.
C C 20	INTERNATIONAL TRADE EXPORT MANAGEMENT	1. Explain the concept of international trade and compare it with domestic trade. 2. Analysis the role of WTO in the international trading environment and explain the concept of Foreign Exchange market. 3. Carry out business according to foreign trade policy and regulations. 4. Mobilise funds from various export finance institutions. 5. Prepare documents related to export trade.
DSE- 04 (A)	INDUSTRIAL RELATIONS AND LABOUR LAWS	1. Explain the evolution and factors influencing industrial relations in changing environment; 2. Evaluate the effectiveness of trade unions and factors influencing their growth; 3. Examine the effectiveness of workers' participation in management; 4. Evaluate the effectiveness of grievance redressal mechanism; 5. Analyse industrial disputes and implementation of its legal provisions; 6. Discuss the concept of bonus and wages payments for all the workers under Code on Wages, 2019.
DSE- 04 (B)	ORGANISATIONAL BEHAVIUR	1. Differentiate between various types of personality using standard tools; 2. Appreciate the applicability of decision making process in real life situations and use TA and Johari Window; 3. Have knowledge to understand the level of motivation in employees; 4. Describe characteristics of a leader; 5. Learn how to build a supportive organisational culture.



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SEC - 04	ENTREPRENEURSHIP DEVELOPMENT	1. Discern distinct entrepreneurial traits; 2. Identify the parameters to assess opportunities and constraints for new business ideas; 3. Develop a business idea by adopting systematic process; Design strategies for successful implementation of ideas; 4. Analyse the institutional finance & Support to entrepreneurs. The steps involved in setting up of micro and small enterprises. 5. Create a Business Plan.
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