



TAKSHASHILA UNIVERSITY

(Tamil Nadu State Private University)
ONGUR, TINDIVANAM TK, VILLUPURAM DT

FACULTY OF SCIENCES

SCHOOL OF BASIC SCIENCES

Department of Chemistry

REGULATION 2025 NEP
CURRICULUM & SYLLABI

I Semester UG



VISION AND MISSION OF UNIVERSITY

VISION:

To inspire, develop and create change makers and world leaders of tomorrow through knowledge similar to the ancient Takshashila University

MISSION:

Nurturing and developing the leaders of tomorrow with the brightest minds and best resources, fostering lifelong and ethical excellence.

DEPARTMENT VISION AND MISSION

VISION:

- To be a center of excellence in fundamental sciences through innovative teaching and research
- To nurture scientific curiosity and critical thinking among students
- To contribute to societal development through scientific knowledge and discovery

MISSION:

M1: Academic Excellence and Skill Development	To provide high-quality chemistry education that integrates fundamental knowledge, advanced scientific concepts, and hands-on laboratory training to prepare students for academic, industrial, and research careers
M2: Research, Innovation, and Interdisciplinary Collaboration	To promote cutting-edge research, innovation, and interdisciplinary collaboration in emerging areas of chemical sciences, nanotechnology, materials science, environmental sustainability, and healthcare
M3: Professional Competency, Ethics, and Leadership	To develop professionally competent graduates with critical thinking, leadership, communication skills, ethical values, and a commitment to lifelong learning and societal development
M4: Industry Engagement and Sustainable Development	To strengthen industry-academia partnerships, entrepreneurship, and sustainable scientific practices that address global challenges and contribute to technological and socioeconomic progress

PROGRAMME OUTCOMES (POs)

PO1: Disciplinary Knowledge

Demonstrate comprehensive knowledge of the fundamental principles and advanced concepts of chemistry, including organic, inorganic, physical, and analytical chemistry.

PO2: Analytical and Critical Thinking

Develop the ability to analyze chemical data, evaluate scientific evidence, interpret experimental results, and apply critical thinking to draw conclusions and make informed decisions.

PO3: Problem Solving

Identify, formulate, and solve theoretical and practical chemical problems using scientific methods, quantitative reasoning, and appropriate experimental techniques.

PO4: Effective Communication

Communicate scientific ideas, experimental findings, and research outcomes effectively through oral presentations, laboratory reports, and digital communication while maintaining scientific accuracy.

PO5: Modern Tool Usage

Acquire proficiency in the use of modern laboratory instruments, analytical techniques, computational tools, information technology, and safety practices relevant to chemistry and scientific research.

PO6: Ethics and Values

Demonstrate professional ethics, environmental responsibility, laboratory safety awareness, academic integrity, and a commitment to sustainable development in scientific practice.

PO7: Teamwork and Leadership

Work effectively as an individual and as a member or leader of multidisciplinary teams, demonstrating collaboration, responsibility, leadership qualities, and interpersonal skills to achieve common goals.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Professional Knowledge

Apply contemporary chemical knowledge and emerging technologies to address challenges in research, industry, healthcare, energy, and environmental sustainability.

PEO2: Research and Development

Apply advanced chemical principles, experimental techniques, and analytical skills to investigate scientific problems and contribute to research and innovation in chemistry and nanotechnology.

PEO3: Leadership

Demonstrate leadership, teamwork, and effective communication skills in planning, executing, and managing scientific and laboratory-based activities.

PEO4: Professional Ethics

Graduates will practice ethical values, environmental awareness, teamwork, and effective communication while contributing responsibly to society.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Domain Knowledge

Demonstrate a thorough understanding of the fundamental concepts of organic, inorganic, physical, analytical, industrial and environmental chemistry.

PSO2: Professional Competency

Practice ethical conduct, laboratory safety, environmental responsibility, and integrity in scientific research and professional activities.



**TAKSHASHILA
UNIVERSITY**

(Established under Tamil Nadu State Private Universities Act 2019 &
Recognized by UGC u/s 2(f) of the UGC Act, 1956)

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FACULTY OF SCIENCES
DEPARTMENT OF CHEMISTRY (B.Sc.CHEMISTRY)
(REGULATION 2025 NEP)
SEMESTER – I

Sl. No.	Course Code	Course Title	Category	Periods			Credits	Hrs.	Max. Marks								
				L	T	P			CAT I, II, III (Best of Two)	ASS	MCQ	ATT	SEM	PRA	CAM	ESM	Total
1	U25CH01B	General Chemistry – I	DSC	3	0	2	4	75	20	5	5	5	5	50	40	60	150
2	U25PH01B	Physics-I	DSC	3	0	2	4	75	20	5	5	5	5	50	40	60	150
3	U25MA06T	Mathematics – I	IDC	3	1	0	4	60	20	5	5	5	5	-	40	60	100
4	U25CS61T	Programming in C	MDC	1	0	2	2	45	-	-	-	-	-	-	100	-	100
Total:							14										
5	U25TA01T / U25FR01T	Tamizhum Ilakkiyamum / French-I	AEC	2	0	0	2	30	20	5	5	5	5	-	40	60	100
6	U25EN01T	English for Communication	AEC	1	0	2	2	45	20	5	5	5	5	-	40	60	100
7	U25VA01T	Indian Intellectual Heritage	VAC	2	0	0	2	30	20	5	5	5	5	-	100	-	100
Total:							6										
Total:							20	360						100	500	300	800

Note:

L – Lecture

P – Practical

ESM – End Semester Exam Marks

ASS – Assignment

CAM – Continuous Assessment Marks

T – Tutorial

CAT – Continuous Assessment Test

ATT – Attendance

SEM – Seminar

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BoS Chairman

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U25CH01B	General Chemistry – I	L	T	P	C	Total
		3	0	2	4	75

COURSE OBJECTIVES:

To learn the principles and concepts of chemistry, including atomic structure, chemical bonding, and molecular geometry
To understand the basic properties of periodic table and electronic configuration
To understand the basic organic chemistry nomenclature, formula and structure of molecules
To obtain the basic knowledge in qualitative and quantitative analysis
To develop practical laboratory skills, including accurate measurement and basic chemical reactions

COURSE OUTCOMES:

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

CO1 :	Understand the properties and characteristics of subatomic particles, including protons, neutrons, and electrons.
CO2 :	Demonstrate the classifying elements into groups and periods, including the concepts of alkali and earth metals, transition metals, halogens and noble gases.
CO3 :	Interpret atomic structure influences chemical bonding, including the formation of ionic, covalent, and metallic bonds.
CO4 :	Formulate the name of organic compounds based on their structures and functional groups.
CO5 :	Determine qualitative and quantitative analysis of various chemical reactions.

UNIT I : ATOMIC STRUCTURE	9 Hrs.
Planck's theory – Photoelectric effect – Compton Effect – de Broglie's relationship- Heisenberg's uncertainty principle – Schrodinger wave equation (elementary treatment) – significance of ψ and ψ^2 quantum number and their significance – concept of atomic orbitals – shapes of s, p, d and f orbitals	

UNIT II : CLASSIFICATION OF ELEMENTS AND PERIODICITY OF PROPERTIES	9 Hrs.
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Classification of elements– noble gases and s, p, d and f-block elements – **Modern periodic table:** position of hydrogen in the periodic table– variation of atomic volume, atomic and ionic radii, ionization potential, electron affinity, electronegativity along periods and groups-variation of metallic characters–factors influencing the above periodic properties.

UNIT III : CHEMICAL BONDING	9 Hrs.
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Ionic bond - Lattice energy – Born Haber cycle – covalent bond -bond polarity – Pauling and Mulliken's scales of electronegativity – polarizing power and polarizability – Fajan's rules – VB theory-Principles of hybridization – shapes of simple inorganic molecules – BeCl₂, BF₃, NH₃, XeF₄, BrF₅, PCl₅ SF₆, H₂O and IF₇– MO theory – Application to H₂, He₂, N₂, O₂, HF and CO – comparison of VB and MO theories – Co-ordinate Bond – Hydrogen bonding-types and effects.

UNIT IV : BASIC CONCEPTS OF ORGANIC CHEMISTRY	9 Hrs.
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Hybridization and shapes of molecules – methane, ethane, ethylene, acetylene and benzene – electron displacement effects – inductive, electromeric, mesomeric (resonance) and hyperconjugation – steric effect – Cleavage of bonds – homolytic and heterolytic fissions – Reactive intermediates – carbocations, carbanions and free radicals – their formation and stability – Nomenclature of organic compounds: IUPAC system of nomenclature of compounds containing up to 8 carbon atoms - mono and bi-functional compounds

UNIT V : PRINCIPLES OF INORGANIC QUALITATIVE AND QUANTITATIVE ANALYSIS	9 Hrs.
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Common ion effect, solubility product, applications of the solubility product principle in qualitative analysis – principle of elimination of interfering anions – complexation reactions in qualitative analysis – spot test reagents and tests with them – Cupferon, DMG, thiourea, magneson, alizarin and Nessler reagent – **Volumetric analysis:** Definitions – normality, molarity, molality and molefraction, primary and secondary standards- theories of acid – base, redox, complexometric, iodometric and iodimetric titrations – calculations of equivalent weights - theories of acid - base, redox, metal ion and adsorption indicators and choice of indicators.

Total Hours: 45




List of Experiments:

1. Estimation of HCl by NaOH using a standard oxalic acid solution
2. Estimation of Na_2CO_3 by HCl using a standard Na_2CO_3 solution
3. Estimation of oxalic acid by KMnO_4 using a standard oxalic acid solution
4. Estimation of Iron (II) sulphate by KMnO_4 using a standard Mohr's salt solution
5. Estimation of KMnO_4 by $\text{Na}_2\text{S}_2\text{O}_3$ using a standard $\text{K}_2\text{Cr}_2\text{O}_7$ solution

Total Hours: 30**TEXTBOOKS:**

1.	Puri B.R., Sharma L.R., Kalia K.K. Principles of Inorganic chemistry, (33rd edition), New Delhi, ShobanLalNaginChand.Co, 2020.
2.	R. Gopalan, P.S.Subramanian, K.Rangarajan , Analytical Chemistry, New age, Sultan Chand & Sons Publishing Year: 2003.
3.	Morrison R.T. and Boyd R.N., Organic Chemistry (6th edition), Ny, Allyn &Beecon Ltd., 1976.
4.	Soni P.L., and Chawla H.M., Textbook of Organic Chemistry, 29th ed., New Delhi, Sultan Chand & Sons, 2007.
5	G. H. Geeffery et al., Vogel's Textbook of Quantitative Chemical Analysis, ELBS Edn, 1989.

REFERENCE BOOKS:

1.	Lee JD, Concise inorganic Chemistry, 5edition, 2022, Chapman & Hall, London,1996.
2.	J.E. Huheey, E. A. Keiter and R. L.Keiter "Inorganic Chemistry, Principles of structure and Reactivity", 4thEdn. Harper Collin College Publishers, 1993.
3.	Basic Organic Chemistry, Ramesh Chandra, Snigdha Singh, Aarushi Singh, Arcler Education Inc, 2019.
4.	Kolthoff&Sandell - Text Book of Qualitative Inorganic Analysis, 6th edn., revised by G.Svehla, Orient Longman, 1979.

WEB RESOURCES

1.	https://nptel.ac.in/courses/104101124
2.	https://ncert.nic.in/textbook/pdf/kech202.pdf
3.	https://www.video-tutor.net/orgo-chem.html




BoS Chairman

U25PH01B	Physics – I	L	T	P	C	Total
		3	0	2	4	75

COURSE OBJECTIVES:

• To expose the interdisciplinary areas of Physics
• To give broader idea about various areas of Physics in a comprehensive manner
• To prepare for various dimensions of problem solving
• To understand and articulate the foundational principles of physics
• To explore and understand the applications of physics in real-world scenarios

COURSE OUTCOMES:

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

CO1 :	Analyze the behavior of sound waves and fundamental concepts of mechanics
CO2 :	Demonstrate the elastic behavior of matter and the basic concepts of surface tension of a fluid
CO3 :	Apply the fundamental thermodynamic properties and the associated laws to understand physical systems.
CO4 :	Illustrate the effects of electric and magnetic fields.
CO5 :	Explore the importance of the laws of refraction and reflection of visible light

UNIT I : WAVE AND OSCILLATIONS	9 Hrs.
Sound: Simple harmonic motion - composition of two simple harmonic motions at right angles (periods in the ratio 1:1) – verification of laws of transverse vibration of a string using sonometer – A.C. frequency measurement using sonometer – steel wire and electromagnet – Ultrasonics – Piezoelectric effect– production of ultrasonic waves by piezoelectric method – application	

UNIT II : PROPERTIES OF MATTER ELASTICITY	9 Hrs.
Elasticity - Elastic constants – Energy stored in stretched wire – bending of beams – Expression for bending moment – Young’s modulus by non-uniform bending – determination of rigidity modulus by torsion pendulum – Surface Tension – Introduction to surface Tension – molecular theory of surface tension, excess of pressure inside a liquid drop and bubble – determination of surface tension of a liquid by drop weight method	

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UNIT III : HEAT AND THERMODYNAMICS	9 Hrs.
Heat capacity – specific heat capacity- specific heat capacity of solids by the method of mixtures – Thermodynamical systems – Zeroth law of thermodynamics – first law of thermodynamics – Second law of thermodynamics – third law of thermodynamics – Isochoric, isobaric, isothermal and adiabatic processes – Statement and proof of Carnot’s theorem – entropy - Change in entropy in reversible and irreversible process.	

UNIT IV : ELECTRICITY AND MAGNETISM	9 Hrs.
Current, current density, Ohm’s law – resistance in series and parallel – calibration of ammeter and voltmeter using potentiometer –Definition of magnetic induction – Biot-Savart’s law – magnetic field along the axis of the circular coil – peak, average and RMS value of AC voltage and current – power factor in AC circuits.	

UNIT V: OPTICS AND FIBER OPTICS	9 Hrs.
Refraction – laws of refraction – image formation by refraction – dispersion through a prism rainbow expression for the dispersive power of the prism. Introduction to optical fibers – critical angle – total internal reflection – principle of light propagation in optical fibers – acceptance angle –numerical aperture – applications.	

Total Hours: 45

List of Experiments:

1. Determination of frequency of AC mains-Sonometer, steel wire and electromagnet.
2. Determine the period of oscillation of a compound pendulum vary with the distance of its pivot point from the center of gravity.
3. Determine the Numerical aperture and the acceptance angle of the optical fiber
4. Determine the wavelength of the given laser using grating and partical size of the given lycopodium powder using laser diffraction method.
5. Determine the young’s modulus of the material of a beam-uniform bending using pin and microscope.
6. Determine the young’s modulus of the material of a beam non – uniform bending using pin and microscope.
7. Determine the rigidity modulus of the material of a wire by using torsion pendulum.
8. Calibration of a low range voltmeter-potentiometer
9. Calibration of an ammeter-potentiometer.

Total Hours: 30

TEXTBOOKS:

1.	R.Murugesan, Allied Physics, S.Chand & Co. Ltd., New Delhi, 1st edition, 2006.
2.	R. Murugesan, Kiruthiga Sivaprasath, Properties of Matter and Acoustics, S. Chand & Co. Ltd. 3 rd Edition, Reprint 2013.
3.	R.Murugesan, Electricity and Magnetism, S.Chand & Co. Ltd, reprint 2017.
4.	Nelkon and Parker, Advanced Level Physics, CBS Publishers & Distributors Pvt. Ltd., 7th edition, 2006.
5	D.R. Kanna& R.S. Bedi, Textbook of Sound, 12th edition, Atma Ram & Sons, New Delhi, 1980.

REFERENCE BOOKS:

1.	Robert F.Kingsbury, Elements of Physics, 1st edition, VanNostrand Company Inc., London, 1966.
2.	BrijLal and N.Subrahmanyam, Properties of Matter, 3rd Edition, S.Chand & Co. Ltd., 2005
3.	M. N Avadhanulu, N. Subrahmanyam, Brij Lal, Text Book of Optics S.Chand & Co. Ltd., 2012.
4.	BrijLal & N.Subrahmanyam, Heat Thermodynamics and Statistical Physics, S.Chand & Co. Ltd., 2012.

WEB REFERENCES:

1.	https://physics.info/sound
2.	https://www.slideshare.net/slideshow/elasticity-notes-1pdf/255259137 http://hyperphysics.phy-astr.gsu.edu/hbase/surten.html
3.	https://www.livescience.com/50776-thermodynamics.html
4.	https://faculty.wcas.northwestern.edu/infocom/Ideas/electric.html
5.	https://www.geeksforgeeks.org/computer-networks/fiber-optics-and-types/


BoS Chairman



U25MA06T	Mathematics - I	L	T	P	C	Total
		3	1	0	4	60

COURSE OBJECTIVES:

• To familiarize the concept of matrices
• To develop problem-solving skills in the theory of equations using standard algebraic techniques
• To introduce the basic concepts and applications of set theory
• To develop logical reasoning skills through mathematical logic and propositional calculus
• To enhance integration techniques for solving elementary calculus problems

COURSE OUTCOMES:

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

CO1 :	Able to understand the Eigen values and Eigen vectors.
CO2 :	Learn the concept of determinant.
CO3 :	Understand the concept of set theory.
CO4 :	Know the concept of connectives
CO5 :	Analyze the basic concepts of graph theory.

UNIT I : MATRICES	12 Hrs.
Definition – types of matrices –Orthogonal and Unitary Matrix-Characteristic Equation-Eigen Value & Eigen Vector-Cayley Hamilton theorem.	

UNIT II : THEORY OF EQUATIONS	12 Hrs.
Introduction-Imaginary and Irrational roots- Reciprocal Equations-Diminishing the Roots-Newton's Method.	

UNIT III : SET THEORY	12 Hrs.
Basic concepts of set theory – types of sets – rules of set theory – principal of inclusion and exclusion.	

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UNIT IV : MATHEMATICAL LOGIC	12 Hrs.
Introduction-Statement and Notation-Connectives-Well-formed formulas- tautology – equivalence – implications – duality law.	

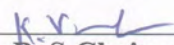
UNIT V : INTEGRATION	12 Hrs.
Introduction –Integration by Substitution-Integration by Parts- Double and Triple integration.	

Total Hours: 60

TEXT BOOKS :	
1.	Vittal. P.R, “Allied Mathematics”, Margham Publications, Chennai, 2019.
2.	Grewal. B. S, “Higher Engineering Mathematics”, 45th Edition, Khanna Publishers, New Delhi, 2023.
3.	Arumugam. S and Thangapandi Isaac. A, “Calculus and Allied Mathematics”, New Gamma Publishing House, Palayamkottai, 2018.

REFERENCE BOOKS :	
1.	Kenneth H. Rosen, “Discrete Mathematics and Its Applications”, 9th Edition, McGraw-Hill Education, 2024.
2.	Richard Johnsonbaugh, “Discrete Mathematics”, 8th Edition, Pearson Education, 2018.
3.	Venkataraman. M.K, “Engineering Mathematics”, Second Edition, National Publishing Company, Chennai, 2001.
4.	Erwin Kreyszig, Advanced Engineering Mathematics, 10th Edition, Wiley India, 2016.
5.	Shanti Narayan and P. K. Mittal, A Textbook of Matrices, 12th Revised Edition, S. Chand Publishing, 2021.

WEB REFERENCES :	
1.	https://www.math.ucdavis.edu/~marx/6.1%207e.pdf
2.	https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SMTA1204.pdf
3.	https://kahedu.edu.in/naac/C-3/Additional%20documents/E-content/2843.pdf
4.	https://www.youtube.com/watch?v=6GF5CR1jFjk
5.	https://www.youtube.com/watch?reload=9&v=ac7SWT8eNA8


BoS Chairman

U25CS61T	Programming in C	L	T	P	C	Total
		1	1	0	2	30

COURSE OBJECTIVES:

• To understand the fundamentals of the C programming language, including syntax, data types, variables, operators, and program structure
• To apply decision-making and looping constructs to solve computational problems
• To develop modular programs using arrays, strings, and functions, including recursive techniques
• To implement C programs using various programming constructs for practical problem-solving
• To build logical thinking and programming skills through hands-on coding exercises

COURSE OUTCOMES:

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

CO1 :	Explain the fundamentals of C programming, including program structure, data types, variables, keywords, and operators.
CO2 :	Develop C programs using decision-making, selection, and iterative control statements to solve simple computational problems.
CO3 :	Design modular programs using arrays, strings, functions, parameter passing techniques, and recursion.
CO4 :	Implement C programs involving input/output operations, operators, conditional statements, and switch-case constructs..
CO5 :	Develop and debug C programs using loops, arrays, and recursive/non-recursive functions to solve real-world programming problems.

UNIT I : OVERVIEW OF C	6 Hrs.
Introduction to C Language - Features of C Language – First Program in C – Compilation of C Program – Variables – definition – declaration – Constants - Keywords – Data Types – integer – char – floating point - Operators – arithmetic – relational – logical – conditional.	

UNIT II : CONTROL STATEMENT	6 Hrs.
Decision Making Statements – simple if – if-else – nested if – Switch Statement – Looping Statements – for – while – do-while –Continue Statement – Break Statement	

UNIT III : ARRAYS & FUNCTIONS	6 Hrs.
Array & String Handling in C: Arrays in C – Strings in C – Multidimensional Arrays in C– Functions in C: Function Prototype – Call by value – Call by reference – Recursion.	

UNIT IV : PROGRAMS FOR PRACTICE – I	6 Hrs.
Program using simple I/O operations – Demonstrate different data types in a program – Program using various operators in C – Program using if-else statement – Program using switch-case statement.	

UNIT V: PROGRAMS FOR PRACTICE – II	6 Hrs.
Program using for loop – Program using while loop– Program using do – while loop – Demonstrate single dimensional array with a C program – Demonstrate two dimensional array with a C program – Program using non-recursive function in C – Program using recursive function in C.	

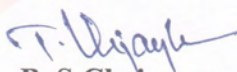
Total Hours: 45

TEXT BOOKS :	
1.	Programming in ANSI C – E.Balagurusamy, Eighth Edition, 2018.
2.	The C Programming Language – Brian W.Kernighan and Dennis M.Ritchie, 1988, 2nd Edition, Pearson Education.
3.	Let Us C – YashavantKanetkar, 21st Edition, 2025.

REFERENCE BOOKS :	
1.	Programming with C – Byron S. Gottfried, Fourth Edition, 2018.
2.	C: How to Program – Paul Deitel and Harvey Deitel, Ninth Edition, 2024.
3.	Programming in C – Stephen G. Kochan, Fourth Edition, 2015.

WEB REFERENCES :

1.	https://www.tutorialspoint.com/cprogramming/index.htm
2.	https://www.geeksforgeeks.org/c-programming-language/
3.	https://www.programiz.com/c-programming
4.	https://www.learn-c.org
5.	https://www.w3schools.com/c/?utm_source=chatgpt.com


BoS Chairman

U25TA01T	Tamizhum Ilakkiyamum	L	T	P	C	Total
		2	0	0	2	30

பாடத்திட்டத்தின் நோக்கம்:

• தமிழின் தொன்மை இலக்கியங்களான சங்க இலக்கியங்கள் பற்றிய ரசனை மற்றும் அறிவைப் பெறுதல்
• காப்பியங்கள்,பக்தி இலக்கியங்கள் வழி அறநெறிகளை வளரச்செய்தல்
• பாட்டியல் நூல்களின் வரலாற்றினை அறியச்செய்து பிற்கால இலக்கியங்களின் அமைப்பினைத் தெளிவுபெறச்செய்தல்
• பள்ளியிலிருந்து கல்லூரிக்கு வரும் மாணவர்களுக்கு தமிழில் உள்ள அறிவு சார்படைப்புகளை அறிமுகப்படுத்துவது இதன் முதல் நோக்கமாகும்
• சமூக மற்றும் தேசிய அறிவுடன் நவீன காலத்திற்கு ஏற்ற தொடர்புத் திறன்களைப் பெற இப்பாடத்திட்டம் மாணவர்களுக்குப் பயிற்சி அளிக்கிறது

பாடத்திட்டத்தின் பயன்கள்

CO1 :	சங்க இலக்கியங்கள் பற்றியும் சங்ககால மக்களின் அகப்புற வாழ்க்கையையும் அறிந்துக்கொள்ளலாம்.
CO2 :	காப்பியங்கள் வழி பழங்கதை மாந்தர்களின் பண்புகளையும் சமயக்கொள்கைகளையும் மாணவர்கள் அறிந்துக்கொண்டு இலக்கியங்களை படைக்கின்றனர்.
CO3 :	பக்தி இலக்கியங்களை மாணவர்கள் படிப்பதன் வழி அறநெறியையும் பக்தியுணர்வையும் உணர்ந்து வாழ்வர்.
CO4 :	சிறிலக்கியங்கள் படிப்பதன் வழி மாணவர்கள் மன்னர்களின் பெருமையையும் தமிழின் சிறப்பையும் உலகறியசெய்வர்.
CO5 :	மொழிப் பாடமாக தமிழைப் பயிலும் மாணவர்களுக்கு கல்லூரி மற்றும் மாநில அளவிலான போட்டித்தேர்விற்கும் தமிழ் இலக்கிய அறிவு தற்கால அரசு வேலை வாய்ப்பிற்கும் உதவுகிறது. இக்கால சூழலுக்கு ஏற்ப இலக்கியங்களை படைக்கும் ஆற்றலைப்பெறுகின்றனர்.

அலகு I: சங்க இலக்கியம்	6 மணிநேரம்
எட்டுத்தொகை, பத்துப்பாட்டு அறிமுகச் செய்திகள் நற்றிணை - நின்ற சொல்லர்;	

நீடுதோன்று இனியர்; சிறுமை உறுபவோ? செய்பு அறியலரே! (கபிலர், பாடல்: 1)
குறுந்தொகை - யாயும் ஞாயும் யார் ஆகியரோ?..... அன்புடை நெஞ்சம் தாம் கலந்தனவே.
 (செம்புலப் பெயனீரார், பாடல்-40) - புறநானூறு - ஈன்று புறந்தருதல் எந்தலைக் கடனே.....
 களிறு எறிந்து பெயர்தல் காளைக்குக் கடனே. (பொன்முடியார், பாடல்.312).

அலகு II : காப்பிய இலக்கியம்	6 மணிநேரம்
காப்பியங்களின் தோற்றமும் வளர்ச்சியும் - ஐம்பெரும் காப்பியங்கள் (சிலப்பதிகாரம் - மணிமேகலை - சீவக சிந்தாமணி - வளையாபதி - குண்டலகேசி) - ஐஞ்சிறுகாப்பியங்கள். சிலப்பதிகாரம் - மதுரைக்காண்டம் - வழக்குரை காதை.	

அலகு III : பக்தி இலக்கியம்	6 மணிநேரம்
பக்தி இலக்கியங்கள் தோற்றமும் வளர்ச்சியும்- (சைவம், வைணவம் - இஸ்லாமியம், கிறித்துவம்-பௌத்தம்-சமணம்.) சைவம் - மாசில் வீணையும் மாலை மதியமும் ஈசன் எந்தை இணையடி நீழலே (திருநாவுக்கரசர். பாடல்1) வைணவம் - செடியாய வல்வினைகள் தீர்க்கும் திருமாலே படியாய்க் கிடந்து உன் பவளவாய் காண்பேனே! (குலசேகர ஆழ்வார். பாடல்.66).	

அலகு IV: சிற்றிலக்கியங்கள்	6 மணிநேரம்
சிற்றிலக்கியங்கள் தோற்றமும் வளர்ச்சியும் - (பரணி - பிள்ளைத்தமிழ் - தூது - உலா - கலம்பகம் - குறவஞ்சி- பள்ளு - அந்தாதி) . தமிழ் விடு தூது அறிமுகம்- சீர்கொண்ட கூடற் சிவராச தானிபுரந்..... நினையும் படிப்பெல்லா நின்னைப் படிப்பார் -1-10, 11-20, 21-27. (27 கண்ணிகள்)	

அலகு V- தற்கால இலக்கியங்கள்	6 மணிநேரம்
ஹைக்கூ தோற்றமும் வளர்ச்சியும், ஹைக்கூ கவிதைகள் - சிறுகதை தோற்றமும் வளர்ச்சியும், சிறுகதை-பிரபஞ்சன்-மனுஷி, (கதைக்கரு,கதாப்பாத்திரங்கள்) மாணவர்களுக்கு சிறுகதை, ஹைக்கூ, ஒரு நிமிட கதை, ஒரு பக்க சிறுகதை படைக்கும் பயிற்சி அளித்தல் .	

Total Hours: 30

பாடநூல்கள்:	
1.	முனைவர். மு.அருணாசலம் & இராஜா வரதராஜா, தமிழ் இலக்கிய வரலாறு, அருண் பதிப்பகம், கண்டோன்மென்ட், திருச்சி, 2017.
2.	முனைவர்.ச.வே.சுப்பிரமணியன்., சங்க இலக்கியம் (மூலம் முழுவதும்), மணிவாசகர்

	பதிப்பகம், சென்னை, 2006.
3.	புலியூர்கேசிகன்., சிலப்பதிகாரம்(மூலம் முழுவதும்), சரண் புகல், சென்னை, 2021.
4.	முனைவர்.கதிர் முருகு., தமிழ்விடுதலாது., கௌரா பதிப்பகம், சென்னை, 2020.
5.	யுகன்(தொகுப்பாசிரியர்).General Tamil III, பிரபஞ்சனின் சிறுகதைகள்., நற்றிணை பதிப்பகம், சென்னை, 2024.

பார்வை நூல்கள்:

1.	தேவி. இராசேந்திரன் (தேவிரா), தமிழ் இலக்கணம், நந்தினி பதிப்பகம், அண்ணாநகர், சென்னை, 2012.
2.	தமிழண்ணல்., புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, மீனாட்சி புத்தக நிலையம், மதுரை, 1960.
3.	தற்காலத் தமிழ் இலக்கியம்., பாரி நிலையம், சென்னை, 1985.
4.	மா.இராசமாணிக்கனார், பத்துப்பாட்டு ஆராய்ச்சி., சாரதா பதிப்பகம், சென்னை, 2012.
5.	இரா.சந்திரசேகரன், தமிழ்ச் சிற்றிலக்கியங்கள்., கௌரா பதிப்பகம், சென்னை, 2012.

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3.	https://www.tamilvu.org/ta/courses-degree-p203-p2031-html-p2031662-29949
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5.	https://shorturl.at/qhnMC


BoS Chairman

U25EN01T	English for Communication	L	T	P	C	Total
		1	0	2	2	45

COURSE OBJECTIVES:

• To master communication fundamentals and overcome barriers
• To boost listening comprehension across contexts
• To enhance speaking fluency, accuracy, and interpersonal skills
• To develop strong reading comprehension and summarization
• To acquire essential paragraph and letter writing abilities

COURSE OUTCOMES:

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

CO1 :	Effectively communicate, identify communication types, and address barriers.
CO2 :	Actively listen to comprehend spoken English and take notes.
CO3 :	Speak clearly and confidently, improving fluency and pronunciation.
CO4:	Read effectively, grasping main ideas and summarizing texts.
CO5 :	Write well-structured paragraphs and various letters.

UNIT I : FOUNDATIONS OF LANGUAGE AND COMMUNICATION	9 Hrs.
Introduction to Communication - Definition, process, importance, types (verbal, non-verbal, formal, informal) – 7 Cs of effective communication – Barriers to Communication: Semantic, psychological, physical, cultural, and how to overcome barriers.	

UNIT II : RECEPTIVE SKILLS I: LISTENING	9 Hrs.
Listening Skills: Importance of active listening – Types of listening - Intensive, Extensive, Attentive – Strategies for listening comprehension - Listening for gist, specific information, inference – Listening to short talks, news snippets, and simple conversations– Note-taking.	

UNIT III : PRODUCTIVE SKILLS I: SPEAKING	9 Hrs.
Intrapersonal and Interpersonal Communication & Differences – Speaking sub-skills: Fluency, Accuracy, Vocabulary and Pronunciation – Factors influencing Speaking Skills: Performance conditions, Affective factors, Listening Skill, Feedback, Linguistic Components & Speaking – Form, Content & Use.	

UNIT IV : RECEPTIVE SKILLS II: READING	9 Hrs.
Reading Skills – Types of reading - skimming, scanning, intensive, extensive; Strategies for reading comprehension - Identifying main ideas, topic sentences, supporting details, inferencing. Summarizing and paraphrasing short passages.	

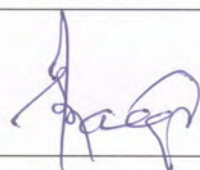
UNIT V: PRODUCTIVE SKILLS II: WRITING	9 Hrs.
Paragraph Writing: Elements of a good paragraph (topic sentence, supporting sentences, concluding sentence) – Cohesion and coherence – Types of paragraphs (descriptive, narrative, persuasive - basic) – Letter Writing: Formal letters (application for leave, complaint letter, simple inquiry letter) – Informal letters (personal letter to a friend/relative).	

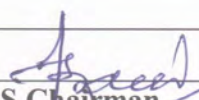
Total Hours: 45

TEXT BOOKS :	
1.	C.Richards, Jack and Theodore S.Rodgers. Approaches and Methods in Language Teaching. 2nd Edition. Cambridge: Cambridge University Press, 2010.
2.	Adler, Ronald B., et al. Understanding Human Communication. 13th ed., Oxford University Press, 2013.
3.	Hacker, Diana, and Nancy Sommers. <i>A Writer's Reference</i> . 9th ed., Bedford/St. Martin's, 2018.
4.	H.H, Stern. Fundamental Concepts of Language Teaching. New York: Oxford University Press, 2015.
5.	Mohan, Krishna, and Meera Banerji. Developing Communication Skills. 2nd ed., Macmillan Education India, 2018.

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1.	Alrasheedi, S. (2020). Investigation of Factors Influencing Speaking Performance of Saudi EFL Learners. Arab World English Journal, 11(4), 66–77. https://doi.org/10.24093/awej/vol11no4.5
2.	Konar, N, How to Teach Vocabulary in ELT Classroom? The Journal of English Language Teaching (India), 8-12, 2009.
3.	Savignon, S. J, Communicative Language Teaching: State of the Art. TESOL Quarterly, 25(2), 261–278. https://doi.org/10.2307/358746 , 1991.

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1.	https://www.bbc.co.uk/learningenglish/english/features/pronunciation
2.	https://www.bbc.co.uk/learningenglish
3.	https://www.skillsyouneed.com/ips/active-listening.html
4.	https://learnenglish.britishcouncil.org/skills/speaking
5.	https://www.cambridgeenglish.org/learning-english/




BoS Chairman

U25VA01T	Indian Intellectual Heritage	L	T	P	C	Total
		2	0	0	2	30

COURSE OBJECTIVES:

- To understand the concept of **Bhāratīyata (Indianness)** and the fundamentals of the **Indian Knowledge System (IKS)**
- To understand the evolution, scope, and interdisciplinary nature of Indian Knowledge Systems
- To learn about India's contributions to science, engineering, technology, humanities, and social sciences
- To appreciate India's rich cultural, philosophical, and scientific heritage and its relevance in the modern world
- To promote ethical values, national integration, innovation, and sustainable development through Indian Knowledge Systems

COURSE OUTCOMES:

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

CO1 :	Explain the concepts of Bhāratīyata (Indianness) and Indian Knowledge Systems.
CO2 :	Describe the evolution, sources, and scope of Indian Knowledge Systems.
CO3 :	Identify India's contributions to science, engineering, technology, and health.
CO4 :	Examine the role of Indian Knowledge Systems in humanities, culture, and governance.
CO5 :	Evaluate the relevance of Indian Knowledge Systems for ethical, sustainable, and value-based development.

UNIT I: INTRODUCTION TO BHĀRATĪYATA (INDIANNESS)	6 Hrs.
Concept of Bhāratīyata (Indianness) – Core values of Indianness – Unity in Diversity – Indian Identity and National Integration – Indian cultural heritage and civilizational ethos – Role of Bhāratīyata in promoting social harmony and national development.	

UNIT II: FOUNDATIONAL CONCEPTS IN IKS FOR SCIENCE, ENGINEERING & TECHNOLOGY	6 Hrs.
Concept and scope of Indian Knowledge Systems (IKS) – Evolution of Indian knowledge traditions – Sources of IKS: Vedas, Upanishads, Itihasas, and Puranas – Interdisciplinary nature of IKS – Relevance of IKS in science, engineering, technology, and contemporary education.	

UNIT III: SCIENCE, ENGINEERING & TECHNOLOGY IN IKS	6 Hrs.
Indian contributions to Mathematics (Decimal system, Zero, Algebra, Geometry) and Astronomy – Engineering, metallurgy, water resource management, and indigenous technologies – Ayurveda, Yoga, medicinal plants, and traditional healthcare systems – Environmental conservation, biodiversity, and sustainable practices.	

UNIT IV: HUMANITIES & SOCIAL SCIENCES IN IKS	6 Hrs.
Indian society and cultural heritage – Family system, traditions, customs, and cultural diversity – Indian literature, Vedas, Upanishads, Itihasas, Puranas, and philosophical traditions – Governance, ethics, leadership, and public administration – Contemporary relevance of IKS in humanities, social sciences, and nation-building.	

UNIT V:INTRODUCTION TO INDIAN KNOWLEDGE SYSTEMS	6 Hrs.
Applications of IKS in science and technology – IKS for sustainable development and environmental stewardship – Value-based education, ethical living, and holistic well-being – Indigenous knowledge for innovation, entrepreneurship, and nation-building – Global relevance of Indian Knowledge Systems.	

Total Hours: 30

TEXT BOOKS:	
1.	Mahadevan, B., Bhat, V. R., &Pavana, R. N“Indian knowledge systems” PHI Learning Pvt. Ltd, 2022.
2.	Kapoor, K., &Danino, M. (Eds.), “Indian knowledge systems. Indian Institute of Advanced Study”, 2019.
3.	Central Board of Secondary Education.Knowledge traditions and practices of India. CBSE, 2012.
4.	Dharampal.“The beautiful tree: Indigenous Indian education in the eighteenth century. Other India Press”, 2000.
5.	Mahadevan, B., Bhat, V. R., &Pavana, R. N,“Indian knowledge systems”,PHI Learning Pvt. Ltd, 2022.

REFERENCE BOOKS:	
1.	Basham, A. L, “The wonder that was India”(3rd ed.). Picador India, 2021.
2.	Chatterjee, S. C., &Datta, D. M, “An introduction to Indian philosophy” (8th ed.). Rupa Publications.

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4.	Hiriyanna, M, "The essentials of Indian philosophy" Motilal Banarsidass, 2015.
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BoS Chairman

U25FR01T	French -I	L	T	P	C	Total
		2	0	0	2	30

COURSE OBJECTIVES:

Développer les compétences de base en compréhension orale, expression orale, lecture et écriture en français.
Permettre aux étudiants de communiquer dans des situations simples de la vie quotidienne en utilisant des expressions appropriées
Améliorer la capacité des élèves à décrire des personnes, des lieux, des routines et des événements en français
Améliorer la compréhension de la culture et de l'usage de langue française par le biais d'exercices
Développer la confiance en soi dans l'utilisation du français pour les interactions académiques, professionnelles

COURSE OUTCOMES:

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

CO1 :	Introduction aux adjectifs et aux formes possessives (termes grammaticaux)
CO2 :	Introduction aux verbes et à leur conjugaison au présent
CO3 :	Utilisation avancée des verbes et de leur conjugaison au présent
CO4 :	Apprendre les expressions liées au temps
CO5 :	Introduction aux prépositions avec exemples

UNIT I : L'adjectif possessif:	6 Hrs.
L'adjectif possessif: Masculin: Mon, ton, son, Féminin: Ma, ta, sa, Pluriel: Mes, tes, ses Pluriel (things & plural subjects): Nos, vos, leurs Verbs: Voir, entendre, sortir, regarder, écouter Revision: Nombres ordinaux aussi	

UNIT II : Le corps;	6 Hrs.
Verbeparlerprésent de l'indicatif (1er groupe) Adjectifpossessif (suite) Exercicesinclus Conjugaison le verbeparler aux troisformes Révision des leçons Dictées Le corps: Dialogue Exercice given	

UNIT III :L'heure	6 Hrs.
L'heure Il fautdonnerbeaucoup des exemplesparl'horloge Verbeparler - conjuguer aux troisformes L'adjectifpossessif (suite) avec les exemples Verbes: Regarder, écouter	

UNIT IV :Nombresordinaux	6 Hrs.
Il fautdonnertous les exercices Nombresordinaux – montrer _ to show Révisions - Verbes: Marcher, écouter, chanter, monter, parler, regarder, fermer... Exercice:	

UNIT V : Les prépositions	6 Hrs.
Le de, des, préposition L'heure: Quelleheureest-il Il fautexpliquerpar la montres et l'horloge: chiffres, cadran, aiguilles, minute, seconde Les exercicesdoiventêtreredonnés aux élèves "à" (at) to	

Les jours de la semaine

Les mois de l'année

"à + le" = au

"à + les" = aux

Articles contractés

Il faut donner des exemples au, aux

TEXT BOOKS :

1. G. Mauger, *Cours de Langue et de Civilisation Françaises – Livre I*, Hachette, Paris.
2. G. Mauger, *Cours de Langue et de Civilisation Françaises – Cahier d'Exercices I*, Hachette.
3. Ross Steele, *Civilisation Progressive du Français – Débutant*, CLE International.
4. Annie Monnerie-Goarin & Michel Siréjols, *Vocabulaire Progressif du Français – Débutant*, CLE International.
5. Maïa Grégoire & Odile Thiévenaz, *Grammaire Progressive du Français – Débutant*, CLE International.

REFERENCE BOOKS :

1. Livre G. Mauger — Cours de langue et de civilisation française
2. G. Mauger, *Cours de Langue et de Civilisation Française*.
3. Gaston Mauger, *Grammaire Pratique du Français d'Aujourd'hui*, Hachette.
4. H. Compton, *French Grammar Made Easy*, Oxford University Press.
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4. RFI Savoirs – Français Facile
5. Le Point du FLE

K.V. ✓
BoS Chairman