



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### DEPARTMENT OF COMPUTER SCIENCE WITH DATA SCIENCE

2023-2024

### COURSE OUTCOMES

YEAR/ SEM: I/I – 100L1A - TAMIL - I

NO.	COURSE OUTCOME
C101.1	சங்க இலக்கியத்தில் காணப்பெறும் வாழ்வியல் சிந்தனைகளை அறிந்து கொள்வர்.
C101.2	அற இலக்கியம் மற்றும் தமிழ் காப்பியங்களின்வழி வாழ்வியல் சிந்தனை பெறுவர்.
C101.3	பக்தி இலக்கியங்களைக் கற்பதன் மூலம் பக்திநெறியினையும், பகுத்தறிவு இலக்கியங்களைக் கற்பதன் வழி நல்லிணக்கதையும் தெரிந்து பின்பற்றுவர்.
C101.4	மொழியறிவோடு சிந்தனைத்திறனைப் பெறுவர்.
C101.5	மொழிப்பயிற்சிக்குத் தேவையான இலக்கணக்களைக் கற்பர்.

YEAR/ SEM: I/I - 100L1E - HINDI - I

NO.	COURSE OUTCOME
C102.1	Explains the nature, features, elements of prose forms and Functional Hindi
C102.2	Understand the theme, aim of lessons and obtain application skills
C102.3	Evaluate the thought, ideology, expressional and artistic skills of writers
C102.4	Obtain skills of critical analysis of Literary forms and drafting skills of personal letters, business letters, noting and drafting skills
C102.5	Learn to Employ the obtained skills in enriching the bright future



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: I/I – 100L1Z - ENGLISH - I

NO.	COURSE OUTCOME
<b>C103.1</b>	Acquire self awareness and positive thinking required in various life situations
<b>C103.2</b>	Acquire the attribute of empathy
<b>C103.3</b>	Acquire creative and critical thinking abilities
<b>C103.4</b>	Learn basic grammar
<b>C103.5</b>	Development and integrate the use of four language skills i.e., listening, speaking, reading and writing

### YEAR/ SEM: I/I – 127C1A – PYTHON PROGRAMMING

NO.	COURSE OUTCOME
<b>C104.1</b>	Develop and execute simple Python programs
<b>C104.2</b>	Write simple Python programs using conditionals and looping for solving problems
<b>C104.3</b>	Decompose a Python program into functions
<b>C104.4</b>	Represent compound data using Python lists, tuples, dictionaries etc.
<b>C104.5</b>	Read and write data from/to files in Python programs

### YEAR/ SEM: I/I – 127C11 – PYTHON PROGRAMMING PRACTICAL

NO.	COURSE OUTCOME
<b>C105.1</b>	To understand the problem solving approaches
<b>C105.2</b>	To learn the basic programming constructs in Python
<b>C105.3</b>	To practice various computing strategies for Python-based solutions to real world problems
<b>C105.4</b>	To use Python data structures - lists, tuples, dictionaries
<b>C105.5</b>	To do input/output with files in Python



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: I/I – 127E1A - MATHEMATICS - I

NO.	COURSE OUTCOME
<b>C106.1</b>	Understand the concepts of Summation of Series
<b>C106.2</b>	Understand the concepts of Cayley Hamilton Theorem and inverse matrices
<b>C106.3</b>	Understand the concepts of finite differences
<b>C106.4</b>	Understand the knowledge about expansions, hyperbolic and inverse hyperbolic functions
<b>C106.5</b>	Understand the concept of Leibnitz theorem and functions of two variables

### YEAR/ SEM: I/I – 127S1A – OFFICE AUTOMATION

NO.	COURSE OUTCOME
<b>C107.1</b>	Understand the basics of computer systems and its components
<b>C107.2</b>	Understand and apply the basic concepts of a word processing package
<b>C107.3</b>	Understand and apply the basic concepts of electronic spreadsheet software
<b>C107.4</b>	Understand and apply the basic concepts of database management system
<b>C107.5</b>	Understand and create a presentation using PowerPoint tool

### YEAR/ SEM: I/I – 100S1A – BASIC TAMIL - I

NO.	COURSE OUTCOME
<b>C108.1</b>	தமிழ் உயிரெழுத்து வடிவங்களையும், மெய்யெழுத்து வடிவங்களையும் அறிந்து கொள்வர்.
<b>C108.2</b>	உயிர், மெய், உயிர்மெய்த் துணைக் குறியீடுகளை அறிந்து அவற்றை எழுதும் திறன் பெறுவர்.
<b>C108.3</b>	ஒரு எழுத்துக்கு ஒரு ஒலி, ஒரு ஒலிக்கு ஒரு எழுத்து என்ற தமிழின் உச்சரிப்பு - வரிவடிவத் தொடர்பை உணர்வர்.
<b>C108.4</b>	சில அடிப்படையான மொழி இலக்கண விதிகளை அறிந்து பயன்படுத்துவர்.
<b>C108.5</b>	தமிழ்நாட்டுச் சூழலில் அன்றாடத் தேவைகளை நிறைவேற்றிக்கொள்ள ஏற்ற மொழிப் பயன்பாடுகளை அறிவர்.



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: I/I – 127B1A – FUNDAMENTALS OF COMPUTERS

NO.	COURSE OUTCOME
<b>C109.1</b>	Fundamental concepts of computer
<b>C109.2</b>	Fundamental mathematical techniques and how they relate to computer
<b>C109.3</b>	The architecture of processing and file storage in a computer system
<b>C109.4</b>	Basic operations of operating systems
<b>C109.5</b>	A variety of software packages applicable to an academic, software development and business environment

### YEAR/ SEM: I/II – 100L2A - TAMIL - II

NO.	COURSE OUTCOME
<b>C110.1</b>	சுற்றிலக்கியங்களின்வழி இலக்கியச் சுவையினையும் பண்பாட்டு அறிவினையும் பெறுவர்.
<b>C110.2</b>	புதுக்கவிதை வரலாற்றினை அறிந்து கொள்வர்.
<b>C110.3</b>	திராவிட இயக்க இலக்கியங்களைக் கற்பதன் மூலம் மொழி உணர்வு, இன உணர்வு, சமத்துவம் சார்ந்த சிந்தனைகளைப் பெறுவர்.
<b>C110.4</b>	தமிழ்மொழியைப் பிழையின்றி எழுதவும், புதிய கலைச்சொற்களை உருவாக்கவும் அறிந்து கொள்வர்.
<b>C110.5</b>	போட்டி தேர்வுகளில் வெற்றி பெறுவதற்குத் தமிழ்ப் பாடத்தினைப் பயன்கொள்ளும் வகையில் பயிற்சி பெறுவர்.

### YEAR/ SEM: I/II – 100L2E - HINDI - II

NO.	COURSE OUTCOME
<b>C111.1</b>	Identifies the nature, features, elements of One Act Plays and Short Stories and skills of Translation
<b>C111.2</b>	Understand the theme, aim of lessons and obtain skills of Evaluation
<b>C111.3</b>	Evaluate the thought, ideology, expressional and artistic skills of writers and contextual meanings
<b>C111.4</b>	Obtain skills of summarizing, evaluating and critical study
<b>C111.5</b>	Employ the techniques and skills of Literature and Translation



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: I/II – 100L2Z - ENGLISH - II

NO.	COURSE OUTCOME
<b>C112.1</b>	Realize the importance of resilience
<b>C112.2</b>	Become good decision-makers
<b>C112.3</b>	Imbibe problem-solving skills
<b>C112.4</b>	Use tenses appropriately
<b>C112.5</b>	Use English effectively at the work place

### YEAR/ SEM: I/II – 127C2A - JAVA PROGRAMMING

NO.	COURSE OUTCOME
<b>C113.1</b>	Understand the basic Object-oriented concepts. Implement the basic constructs of Core Java
<b>C113.2</b>	Implement inheritance, packages, interfaces and exception handling of Core Java
<b>C113.3</b>	Implement multi-threading and I/O Streams of Core Java
<b>C113.4</b>	Implement AWT and Event handling
<b>C113.5</b>	Use Swing to create GUI

### YEAR/ SEM: I/II – 127C21 – JAVA PROGRAMMING PRACTICAL

NO.	COURSE OUTCOME
<b>C114.1</b>	Code, debug and execute Java programs to solve the given problems
<b>C114.2</b>	Implement multi-threading and exception-handling
<b>C114.3</b>	Implement functionality using String and StringBuffer classes
<b>C114.4</b>	Demonstrate Event Handling
<b>C114.5</b>	Create applications using Swing and AWT



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrvakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: I/II – 127E2A - MATHEMATICS - II

NO.	COURSE OUTCOME
<b>C115.1</b>	Understand the various concepts of Bernoulli's and Reduction Formula
<b>C115.2</b>	Understand the concepts of Fourier Series
<b>C115.3</b>	Understand the concepts of Non-Homogenous and Partial Differential Equations
<b>C115.4</b>	Understand the Laplace Transforms
<b>C115.5</b>	Understand the concepts of Vector Differentiation

### YEAR/ SEM: I/II – 127S21 – OFFICE AUTOMATION PRACTICAL

NO.	COURSE OUTCOME
<b>C116.1</b>	Understand the basics of computer systems and its components
<b>C116.2</b>	Understand and apply the basic concepts of a word processing package
<b>C116.3</b>	Understand and apply the basic concepts of electronic spreadsheet software
<b>C116.4</b>	Understand and apply the basic concepts of database management system
<b>C116.5</b>	Understand and create a presentation using PowerPoint to

### YEAR/ SEM: I/II – 100S2A – BASIC TAMIL - II

NO.	COURSE OUTCOME
<b>C117.1</b>	தமிழ்மொழியைப் பேசவும் பிறர் பேசுவதைப் புரிந்துகொள்ளவும் திறன் பெறுதல். தமிழைப் படிக்கவும் எழுதவும் கற்றுக்கொள்வர்.
<b>C117.2</b>	கடிதம், விண்ணப்பம், நிகழ்ச்சிக் குறிப்பு எழுதுதல், தகவல் தொடர்புச் சாதனங்களில் தகவல் எழுதுதல் என அன்றாட வாழ்வில் தமிழ்ப் பயன்பாட்டைக் கற்றுக்கொள்வர்.
<b>C117.3</b>	தமிழின் இலக்கிய வளத்தோடு தமிழரின் அறக் கோட்பாடுகளையும் தமிழரின் வரலாற்று - பண்பாட்டுச் செழுமையையும் புரிந்துகொள்வர்.
<b>C117.4</b>	தமிழறிஞர்களையும் படைப்பாளிகள், அரசியல் தலைவர்கள், சிறந்த ஆளுமைகளைப் பற்றி அறிந்து கொள்வர்.





## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

<b>C117.5</b>	தமிழர் கலை, பண்பாடு, பழக்கவழக்கங்கள், விளையாட்டுகள், விழாக்கள், தமிழரின் தனித்த அடையாளங்கள், சிறப்புகள் ஆகியவற்றை அறிவதோடு, அவரவர் மண்ணுக்குரிய கலைப் பண்பாட்டோடு ஒப்பிட்டுப் புரிந்து கொள்வர்.
---------------	---

### YEAR/ SEM: I/II – 127S2A – QUANTITATIVE APTITUDE

NO.	COURSE OUTCOME
<b>C118.1</b>	To gain knowledge on LCM and HCF and its related problems
<b>C118.2</b>	To get an idea of age, profit and loss related problem solving
<b>C118.3</b>	Able to understand time series simple and compound interests
<b>C118.4</b>	Understanding the problem related to probability, and series
<b>C118.5</b>	Able to understand graphs, charts

### YEAR/ SEM: II/ III – LA13A - TAMIL - III

NO.	COURSE OUTCOME
<b>C201.1</b>	பல்லவர்காலத்தில் நாயன்மார்கள் மற்றும் ஆழ்வார்களின் பக்திநெறிகளை அறிகின்றனர்.
<b>C201.2</b>	இசுலாமியர் மற்றும் கிறித்தவர்கள் தமிழிக்குச் செய்த தொண்டினை அறிகின்றனர்.
<b>C201.3</b>	நாயக்கர் காலத்தில் தோன்றிய சிற்றிலக்கியங்களின் வளர்ச்சிநிலைகளை அறிகின்றனர்.
<b>C201.4</b>	சமயங்கள் வளர்த்த இலக்கியங்களை அறிகின்றனர்.
<b>C201.5</b>	மொழிப்பயிற்சியின் வாயிலாக கடிதம் மற்றும் பிறமொழிக் கலவாமல் தமிழ்எழுத அறிகின்றனர்.



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: II/III – LE13A - HINDI - III

NO.	COURSE OUTCOME
<b>C202.1</b>	To identify the literary trends of ancient Hindi literature, and social conditions and its impact on ancient poetry
<b>C202.2</b>	To summarise the content of prescribed poems and understand the trends of Ancient Hindi Literature
<b>C202.3</b>	To critical study and analysis of artistic skills of poets and their expressional skills and literary trends
<b>C202.4</b>	To employ the methods of interpreting contexts, ideas and identify the special features, poetic skills through practicing annotation writing
<b>C202.5</b>	To differentiate the subject, ideology, contribution and poetic skills with each other and also know about contemporary poets, writers and the impact of contemporary situations

### YEAR/ SEM: II/III – LZ13B – LANGUAGE THROUGH LITERATURE - I

NO.	COURSE OUTCOME
<b>C203.1</b>	To get acquainted with the different forms of poetry, prose, fiction and drama
<b>C203.2</b>	To get exposed to advanced level of grammatical patterns and usages in English
<b>C203.3</b>	To improve their skills to speak and write English accurately
<b>C203.4</b>	To closely analyze texts, applying critical and theoretical approaches
<b>C203.5</b>	To evaluate socio-cultural and historical phenomena influence the literary production of a particular period

### YEAR/ SEM: II/III – TC23A – RELATIONAL DATABASE MANAGEMENT SYSTEM

NO.	COURSE OUTCOME
<b>C204.1</b>	Describe basic concepts of database system
<b>C204.2</b>	Design a Data model and Schemas in RDBMS
<b>C204.3</b>	Analyze functional dependencies for designing robust Database
<b>C204.4</b>	Competent in use of SQL
<b>C204.5</b>	Competent in use of PL/SQL





## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: II/III – TC231 – PL/SQL LAB

NO.	COURSE OUTCOME
<b>C205.1</b>	Implement the DDL , DML Commands and Constraints
<b>C205.2</b>	Create, Update and query on the database
<b>C205.3</b>	Handle Exceptions and Create Cursors
<b>C205.4</b>	Create Triggers and Packages
<b>C205.5</b>	Design and Implement simple project with Front End and Back End

### YEAR/ SEM: II/III – SP3AA - STATISTICS - I

NO.	COURSE OUTCOME
<b>C206.1</b>	To organize, manage and present data.
<b>C206.2</b>	To analyze statistical data graphically using frequency distributions and cumulative frequency distributions
<b>C206.3</b>	To analyze statistical data using measures of central tendency
<b>C206.4</b>	To analyse statistical data using measures of dispersion
<b>C206.5</b>	To study the relationship between variables and association between variables

### YEAR/ SEM: II/III – TSSEG – PERSONALITY ENRICHMENT

NO.	COURSE OUTCOME
<b>C207.1</b>	To develop and exhibit an accurate sense of self.
<b>C207.2</b>	To demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment
<b>C207.3</b>	To evaluate and improve upon personal leadership strengths and weaknesses
<b>C207.4</b>	To build self-awareness, personal development, and life skills.
<b>C207.5</b>	To assert strengthened personal character and further, an enhanced ethical sense.



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: II/IV – LA14A – TAMIL - IV

NO.	COURSE OUTCOME
<b>C208.1</b>	காப்பியங்களின் வாயிலாக வாழ்வியல் அறங்களை அறிகின்றனர்.
<b>C208.2</b>	புராணங்களின் வாயிலாக பண்பாடு, ஒழுக்கம் ஆகியவற்றை அறிகின்றனர்.
<b>C208.3</b>	தேம்பாவணி, சீறாப்புராணம் வாயிலாக இறைத்தூதர்களின் வாழ்வியல் மற்றும் அருட்செயல்களை அறிகின்றனர்.
<b>C208.4</b>	சிறுநிலக்கியங்களின் வாயிலாக பழங்கால மக்களின் வாழ்வியல் முறைகளை அறிகின்றனர்.
<b>C208.5</b>	மொழிப்பயிற்சியின் வாயிலாக மாணாக்கர்கள் கவிதை மற்றும் சிறுகதைப் படைக்கும் ஆற்றலைப் பெறுகின்றனர்.

### YEAR/ SEM: II/IV – LE14A – HINDI - IV

NO.	COURSE OUTCOME
<b>C209.1</b>	To identify the modern trends of Modern Hindi literature, different forms of modern literature i.e., poetry, fiction etc.
<b>C209.2</b>	To summarise the content of prescribed poems and understand the trends of modern Hindi Literature
<b>C209.3</b>	To Critical study and analysis of artistic skills of poets and their expression skills
<b>C209.4</b>	To employ the methods of interpreting contexts, ideas and identify the poetic skills through practicing annotation writing
<b>C209.5</b>	To differentiate the subject and poetic skills of prescribe poems with each other and also know about contemporary poets, writers and the impact of contemporary situations

### YEAR/ SEM: II/IV – LZ14B – LANGUAGE THROUGH LITERATURE - II

NO.	COURSE OUTCOME
<b>C210.1</b>	Ability to comprehend both the written and spoken texts
<b>C210.2</b>	To broaden their vocabularies and to develop an appreciation of language
<b>C210.3</b>	To develop a deeper appreciation of cultural diversity by introducing them to poetry from a variety of cultures throughout the world
<b>C210.4</b>	Ability to write/speak grammatically correct sentences
<b>C210.5</b>	To create clear and compelling communication in writing and speaking skills



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: II/IV – TC24A – DATA ANALYTICS

NO.	COURSE OUTCOME
<b>C211.1</b>	Handle missing data in the real world data sets by choosing appropriate methods.
<b>C211.2</b>	Summarize the data using basic statistics. Visualize the data using basic graphs and plots.
<b>C211.3</b>	Identify the outliers if any in the data set.
<b>C211.4</b>	Choose appropriate feature selection and dimensionality reduction.
<b>C211.5</b>	Techniques for handling multi-dimensional data.

### YEAR/ SEM: II/IV – TC241 – DATA ANALYTICS LAB

NO.	COURSE OUTCOME
<b>C212.1</b>	Will be able to understand and use python data science libraries as a tool for data analytics
<b>C212.2</b>	Will be able to work with many Statistics functions
<b>C212.3</b>	Will be able to create Python codes for the above techniques
<b>C212.4</b>	Will be able to do Data Preprocessing
<b>C212.5</b>	Will be able to create visualizations using python

### YEAR/ SEM: II/IV – SP3AB – STATISTICS - II

NO.	COURSE OUTCOME
<b>C213.1</b>	To understand the basic concept of Probability
<b>C213.2</b>	To identify the characteristics of different discrete and continuous distributions.
<b>C213.3</b>	To identify the type of statistical situation to which different distributions can be applied. comprehend the Sampling distributions.
<b>C213.4</b>	To understand how to apply statistical tests to get information from data
<b>C213.5</b>	To test the significant difference between means



## PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

Recognized by UGC under section 2(f) of UGC Act 1956

### YEAR/ SEM: II/IV – SP3A1 – STATISTICS I & II PRACTICAL

NO.	COURSE OUTCOME
<b>C214.1</b>	To analyze the statistical data graphically using frequency distribution and cumulative frequency distribution
<b>C214.2</b>	To analyse statistical data using measures of central tendency and variations
<b>C214.3</b>	To understand relationship between variables and association between categorical data
<b>C214.4</b>	To find the expected frequency for the given distribution
<b>C214.5</b>	To test the significant difference between means, variance and attributes

### YEAR/ SEM: II/IV – ENV4B – ENVIRONMENTAL STUDIES

NO.	COURSE OUTCOME
<b>C215.1</b>	To know the scope and importance of environmental studies and to create public awareness for environmental protection
<b>C215.2</b>	To Elucidate the problems created by the over utilization of resources and to suggest alternate energy to meet our energy crisis/demand
<b>C215.3</b>	To give a neat sketch explanation of ecosystem, ecological succession, ecological pyramid, food chain and food web
<b>C215.4</b>	To know the different methods of biodiversity conservation
<b>C215.5</b>	To analyse the effects of pollution and the role of individual for pollution control programme

### YEAR/ SEM: II/IV – TSSN – QUANTITATIVE APTITUDE

NO.	COURSE OUTCOME
<b>C216.1</b>	To apply Quantitative Reasoning and Mathematical Methodologies to understand and to solve problems
<b>C216.2</b>	To understand Brief Description of Learning Objective
<b>C216.3</b>	To acquire Mental Alertness and have a sharp mind
<b>C216.4</b>	Quantitative aptitude is tested in various competitive examinations
<b>C216.5</b>	Quantitative aptitude is an important measure for prospective business executives' abilities.