Programme: B.Com. Computer Applications (Minor)

w.e.f. AY 2025-26

COURSE STRUCTURE

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits
III	V	5	Data Science using Python	3	3
			Data Science using Python Practical Course	2	1
		6	Web Interface Designing using Javascript, PHP	3	3
			Web Interface Designing using Javascript, PHP Practical Course	2	1

SRI VENKATESWARA UNIVERSITY::TIRUPATI
Computer Applications Minor
III Year V SEMESTER
COURSE 5: Data Science using Python
w.e.f 2025-26

Theory Credits: 3 3 hrs/week

Learning Outcomes:

At the end of the course, the student will able to;

- Understanding the basic concepts of Data Science
- Understand why Python is a useful scripting language for developers
- Use standard programming constructs like selection and repetition
- Use aggregated data (list, tuple and dictionary)
- Implement functions and modules

Unit - I

Introduction to Data Science: Data science and its importance, advantages of data science, the process of data science, Responsibilities of a data scientist, qualifications of data scientists, would you be a good data scientist, why to use Python for data science.

Unit - II

Introduction to Python: What is Python, features of Python, history of Python, writing and executing the Python program, basic syntax, variables, keywords, data types, operators, indentation.

Control structures: Conditional statements-if, if-else, nested if-else, looping statements-for, while, break, continue, pass

Unit - III

Strings: definition, accessing, slicing and basic operations

Lists - introduction, accessing list, operations, functions and methods

Tuples - introduction, accessing tuple

Dictionaries - introduction, accessing values in dictionaries

Unit - IV

Functions & Modules: Functions - defining a function, calling a function, types of functions, function arguments, local and global variables, lambda and recursive functions, Modules- math and random

Unit - V

Classes and Objects: Class method and self-argument, class variables and object variables, public and private data members, private methods, built-in class attributes, static methods.

Reference Books:

1. Steven cooper --- Data Science from Scratch, Kindle edition
2. Reema Thareja — Python Programming using problem solving approach, Oxford Publication
3. Dr. R Nageswara Rao – Core Python Programming, DreamTech Press

Online Resources:

https://stackify.com/java-tutorials/
https://www.w3schools.com/java/
https://www.javatpoint.com/java-tutorial
https://www.tutorialspoint.com/java/index.htm

SRI VENKATESWARA UNIVERSITY::TIRUPATI
Computer Applications Minor
III Year V SEMESTER
COURSE 5: Data Science using Python Practicals

Practical Credits: 1 2 hrs/week

LIST OF EXPERIMENTS

1. Python Program to Calculate simple and compound interest.
2. Python Program to Swap Two Variables
3. Python Program to Generate a Random Number
4. Python Program to Check if a Number is Odd or Even
5. Python Program to Find the Largest Among Three Numbers
6. Python Program to Check Prime Number
7. Python Program to Display the multiplication Table
8. Python Program to Print the Fibonacci sequence
9. Python Program to Find the Sum of Natural Numbers
10. Python Program to Find Factorial of Number Using Recursion
11. Python Program to work with string methods.
12. Python Program to create a dictionary and print its content.

MODEL QUESTION PAPER
SRI VENKATESWARA UNIVERSITY::TIRUPATI
Computer Applications Minor
III Year V SEMESTER
COURSE 5: Object Oriented Programming with JAVA
(w.e.f. 2025-26)

Time :3 Hrs **Max Marks: 75 Marks**

SECTION - A

Answer any Five of the following **5 X 3= 15 Marks**

1. Short answer question from Unit-1
2. Short answer question from Unit-1
3. Short answer question from Unit-2
4. Short answer question from Unit-2
5. Short answer question from Unit-3
6. Short answer question from Unit-3
7. Short answer question from Unit-4
8. Short answer question from Unit-4
9. Short answer question from Unit-5
10. Short answer question from Unit-5

SECTION - B

Answer any Five of the following **5 X 12= 60 Marks**

11. Long answer question from Unit-1
12. Long answer question from Unit-1
13. Long answer question from Unit-2
14. Long answer question from Unit-2
15. Long answer question from Unit-3
16. Long answer question from Unit-3
17. Long answer question from Unit-4
18. Long answer question from Unit-4
19. Long answer question from Unit-5
20. Long answer question from Unit-5

Note: **The question paper setter is requested to set question paper based on a model question paper and ensure coverage across all units equally**.

SRI VENKATESWARA UNIVERSITY::TIRUPATI
Computer Applications Minor
III Year V SEMESTER
COURSE 6: Web Application Development using Javascript, PHP
w.e.f 2025-26

Theory Credits: 3 3 hrs/week

Learning Outcomes:

Students after successful completion of the course will be able to:

1. Write simple programs in PHP.
2. Understand how to use regular expressions, handle exceptions, and validate data using PHP.
3. Apply In-Built functions and Create User defined functions in PHP programming.
4. Write PHP scripts to handle HTML forms.
5. Write programs to create dynamic and interactive web based applications using PHP and MYSQL.
6. Know how to use PHP with a MySQL database and can write data base driven web pages.

Unit – I

Introduction to JavaScript - What is DHTML, JavaScript - basics, variables, statements, operators, conditional statements, arrays, functions, string manipulations, mathematical functions.

Unit – II

HTML DOM: Introduction, Javascript document object: Finding HTML Elements(by ID, by Tag Name, by class Name, by CSS Selectors), Changing HTML Elements, Adding and Deleting Elements.

DHTML with JavaScript: Data validation, regular expressions, exception handling, messages and confirmations.

Unit - III

The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants. Control statements in PHP, Creating Arrays, Array-Related Functions.

Working with Objects: Creating Objects, Object Instance, using String, Date and Time Functions in PHP.

Unit - IV

Working with Forms: Creating Forms, Accessing Form Input with get and Post method, Combining HTML and PHP code on a single Page, Working with File Uploads.

Session Function Overview: Starting a Session, Working with session variables, Destroying Sessions and Un-setting Variables.

Unit – V

Interacting with MySQL using PHP: MySQL features, Data types, operators, MySQL vs MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data.

Creating Database, creating Tables using PHP, Record Adding Mechanism using PHP, Viewing Records using PHP, Record Deletion Mechanism using PHP.

Reference Books.

1. An Introduction to HTML and JavaScript: for Scientists and Engineers, Davi dR. Brooks. Springer, 2007
2. Robin Nixon, Learning PHP, MySQL, JavaScript, CSS & HTML5, Third Edition O'reilly, 2014.
3. Julie C.Meloni, SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).
4. Steven Holzner, PHP: The Complete Reference, McGraw-Hill

Web Resources:

a. http://www.w3schools.com
b. https://www.phptpoint.com

SRI VENKATESWARA UNIVERSITY::TIRUPATI
Computer Applications Minor
III Year V SEMESTER
COURSE 6: Web Application Development Javascript, PHP

Practical Credits: 1 2 hrs/week

1. Write a JavaScript program to Display date and time and greetings of the day
2. Write a JavaScript to calculate average of the given numbers.
3. Write a PHP program to display Fibonacci series.
4. Write a PHP Program to read the employee details.
5. Write a PHP program to prepare the student marks list.
6. Create student registration form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.
7. Create Website Registration Form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.
8. Write PHP script to demonstrate passing variables with cookies.
9. Write a PHP script to connect MySQL server from your website.
10. Write a program to keep track of how many times a visitor has loaded the page.
11. Write a PHP application to perform CRUD (Create, Read, Update and Delete) operations on a database table.
12. Create a web site using any open-source framework built on PHP and MySQL – It is a team activity wherein students are divided into multiple groups and each group comes up with their own website with basic features

MODEL QUESTION PAPER
SRI VENKATESWARA UNIVERSITY::TIRUPATI
Computer Applications Minor
III Year V SEMESTER
COURSE 6: Web Application Development Javascript, PHP
(w.e.f. 2025-26)

Time :3 Hrs **Max Marks: 75 Marks**

SECTION - A

Answer any Five of the following **5 X 3= 15 Marks**

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2. Short answer question from Unit-1
3. Short answer question from Unit-2
4. Short answer question from Unit-2
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6. Short answer question from Unit-3
7. Short answer question from Unit-4
8. Short answer question from Unit-4
9. Short answer question from Unit-5
10. Short answer question from Unit-5

SECTION - B

Answer any Five of the following **5 X 12= 60 Marks**

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