



**Course Outcomes & CO-PO-PSO Mapping and Justification**

<b>Subject</b>	<b>Python Application Programming</b>	<b>17CS664</b>
<b>COURSE OUTCOMES:</b>		
<b>CO No.</b>	<b>On completion of this course, students will be able to:</b>	<b>Cognitive Level</b>
17CS664.1	Understand Python syntax and semantics and be fluent in the use of Python flow control and Functions	L2 Understand
17CS664.2	Demonstrate the proficiency in handling Strings and File Systems	L2 Understand
17CS664.3	Develop, run and manipulate Python programs using Core data structures like Lists, Dictionaries, and use of regular expressions	L3 Apply
17CS664.4	Interpret the concepts of object oriented programming using Python	L2 Understand
17CS664.5	Develop real world applications related to Network Programming, Web Services and Databases in Python.	L6 Create

**CO-PO-PSO MAPPING**

CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
17CS664.1	3	2	3	-	2	-	-	-	-	-	-	2	3	-	-
17CS664.2	3	3	3	-	2	-	-	-	-	-	-	2	3	-	-
17CS664.3	3	3	3	-	2	-	-	-	-	-	-	2	3	-	-
17CS664.4	3	2	2	-	2	-	-	-	-	-	-	2	3	-	-
17CS664.5	3	3	3	-	3	-	-	-	-	-	-	2	3	-	-
<b>17CS664</b>	<b>3.0</b>	<b>2.6</b>	<b>2.8</b>	<b>-</b>	<b>2.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>3.0</b>	<b>-</b>	<b>-</b>

**CO-PO-PSO JUSTIFICATION**

<b>CO No.</b>	<b>PO/PSO</b>	<b>CL</b>	<b>Justification</b>
17CS664.1	PO1	3	Strongly mapped as students gain the knowledge on Python syntax and semantics and be fluent in the use of Python flow control in writing the programs
	PO2	2	Moderately mapped as only few students identify their own problem by conducting literature review for writing programs.
	PO3	3	Strongly mapped as designing and implementation is required to write the program for the given problem statement.
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications ( Python IDLE / Anaconda with spyder IDE).
	PO12	2	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Python syntax and semantics and fluent in the use of concepts in writing the programs to build application.
17CS664.2	PO1	3	Strongly mapped as the students need the knowledge of python syntax and semantics related to Files and Strings to apply them in building applications which needs python programming constructs
	PO2	3	Strongly mapped as problem analysis is necessary for solving /developing any application using appropriate python programming construct such as Files and Strings.
	PO3	3	Strongly mapped as the process of design and implementation has to be followed while applying the concepts.
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications (Python IDLE / Anaconda with spyder IDE).
	PO12	2	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Python syntax and semantics and fluent in the use of concepts in writing the programs to build application.
17CS664.3	PO1	3	Strongly mapped as the students need the knowledge of python syntax and semantics related to Lists, Dictionaries, tuples and regular Expressions to apply them in building applications

	PO2	3	Strongly mapped as problem analysis is necessary for solving /developing any application using appropriate python programming construct such as to Lists, Dictionaries, tuples and regular Expressions.
	PO3	3	Strongly mapped as the process of design and implementation has to be followed while applying the concepts.
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications (Python IDLE / Anaconda with spyder IDE).
	PO12	3	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Python syntax, Lists, Dictionaries, tuples and regular Expressions and fluent in the use of concepts in writing the programs to build application.
17CS664.4	PO1	2	Strongly mapped as the students need the knowledge of object oriented concepts in python syntax and semantics and apply them in developing applications
	PO2	2	Moderately mapped to problem analysis as the moderate number of students can use the concepts of object oriented programming in finding the solutions to the problem.
	PO3	2	Moderately mapped to design and development as the moderate number of students use python in building the applications
	PO5	2	Moderately mapped as students learn modern IDE tools to execute python programs / applications (Python IDLE / Anaconda with spyder IDE).
	PO12	2	Moderately mapped as students apply the concepts learnt in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Python syntax and semantics, object oriented concepts and fluent in the use of concepts in developing / build application.
17CS664.5	PO1	3	Strongly mapped as the students should have the complete basic knowledge of the Python APIs related to network programming, web services and database programming
	PO2	3	Strongly mapped as the students need to perform the complete problem analysis while developing the applications related to networks, web and database.
	PO3	3	Strongly mapped as all students and design and develop the network, web and database applications using python APIs.

	PO5	3	Strongly mapped as students learn modern IDE tools to build and execute python applications( Anaconda with spyder IDE), Databases (MySQL SQLite), Web Service Tools (SOAPUI)
	PO12	3	Strongly mapped as students apply the concepts learnt in continuing professional development and new product developments.
	PSO1	3	Strongly mapped as students understand fundamentals of Networks, databases, Python syntax and semantics and fluent in the use of concepts in developing / build application.

**Prepared by**

**HoD**

**Kantharaju H C / Dr. M Ramakrishna**

**Dr. M. Ramakrishna**