AALIM MUHAMMED SALEGH
COLLEGE OF ENGINEERING

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"Nizara Educational Campus" Muthapudupet, Avadi-IAF, Chennai - 55.

B.E. Computer Science and Engineering (Cyber Security)

CO – PO – PSO MAPPING

GE3151 Problem Solving and Python Programming

LIST OF COURSE OUTCOMES

CO1: Develop algorithmic solutions to simple computational problems.CO2:
Develop and execute simple Python programs.

CO3: Write simple Python programs using conditionals and loops for solving
problems.

CO4: Decompose a Python program into functions.

CO5: Represent compound data using Python lists, tuples, dictionaries etc.CO6:
Read and write data from/to files in Python programs.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	3	3	3	2	-	-	-	-	-	2	2	3	3	-
2	3	3	3	3	2	-	-	-	-	-	2	2	3	-	-
3	3	3	3	3	2	-	-	-	-	-	2	-	3	-	-
4	2	2	-	2	2	-	-	-	-	-	1	-	3	-	-
5	1	2	-	-	1	-	-	-	-	-	1	-	2	-	-
6	2	2	-	-	2	-	-	-	-	-	1	-	2	-	
Avg	2	3	3	3	2	-	-	-	-	-	2	2	3	3	-

CO – PO – PSO MAPPING

GE3171 PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1: Develop algorithmic solutions to simple computational problemsCO2:
Develop and execute simple Python programs.

CO3: Implement programs in Python using conditionals and loops for solving
problems.

CO4: Deploy functions to decompose a Python program. CO5:
Process compound data using Python data structures.

CO6: Utilize Python packages in developing software applications.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	3	3	3	2	-	-	-	-	-	2	2	3	3	-
2	3	3	3	3	2	-	-	-	-	-	2	2	3	-	-
3	3	3	3	3	2	-	-	-	-	-	2	-	3	-	-
4	2	2	-	2	2	-	-	-	-	-	1	-	3	-	-
5	1	2	-	-	1	-	-	-	-	-	1	-	2	-	-
6	2	2	-	-	2	-	-	-	-	-	1	-	2	-	
AVg.	2	3	3	3	2	-	-	-	-	-	2	2	3	3	-

CO – PO – PSO MAPPING

CS3251 PROGRAMMING IN C

LIST OF COURSE OUTCOMES

CO1: Demonstrate knowledge on C Programming constructs.

CO2: Develop simple applications in C using basic constructs.

CO3: Design and implement applications using arrays and strings.

CO4: Develop and implement modular applications in C using functions.

CO5: Develop applications in C using structures and pointers.

CO6: Design applications using sequential and random-access file processing.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	1	2	2	1	2	1	1	1	2	-	3	2	1	2	-
2	2	2	2	1	2	1	1	1	2	-	3	3	2	2	-
3	2	3	2	1	2	1	1	1	2	-	3	2	2	2	-
4	3	2	2	1	3	1	1	1	2	-	3	3	2	2	-
5	2	3	3	1	2	1	2	1	2	-	3	2	2	3	-
6	2	2	3	2	1	2	-	-	2	1	2	2	2	2	
Avg	2	2	2	1	2	1	1	1	2	-	3	2	2	2	-

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CO – PO – PSO MAPPING

CS3271 PROGRAMMING IN C LABORATORY

LIST OF COURSE OUTCOMES

CO1: Demonstrate knowledge on C programming constructs.

CO2: Develop programs in C using basic constructs.

CO3: Develop programs in C using arrays.

CO4: Develop applications in C using strings, pointers, functions.

CO5: Develop applications in C using structures.

CO6: Develop applications in C using file processing.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	1	3	3	1	1	1	-	-	2	1	2	2	2	2	
2	2	3	3	2	1	1	-	-	2	1	2	2	2	3	
3	2	2	2	1	1	2	-	-	2	-	2	2	2	2	
4	2	2	2	2	1	2	-	-	3	-	3	3	3	2	
5	2	2	3	2	3	2	-	-	3	-	3	3	3	3	
6	2	2	3	2	1	2	-	-	2	1	2	2	2	2	
Avg.	2	2	3	2	1	2	-	-	2	1	2	2	2	2	

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CO – PO – PSO MAPPING

MA3354 DISCRETE MATHEMATICS

LIST OF COURSE OUTCOMES

CO1: Have knowledge of the concepts needed to test the logic of a program.

CO2: Have an understanding in identifying structures on many levels.

CO3: Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science.

CO4: Be aware of the counting principles.

CO5: Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	3	3	2	-	-	-	-	-	-	-	-	2	-	-	-
2	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	3	2	-	-	2	-	-	-	3	-	-	-	-	-
4	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-
5	-	2	2	2	-	-	-	-	-	2	-	-	-	-	-
Avg.	1	3	2	1	-	-	-	-	-	1	-	-	-	-	-

CO – PO – PSO MAPPING

CS3351DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION

LIST OF COURSE OUTCOMES

CO1: Design various combinational digital circuits using logic gates.

CO2: Design sequential circuits and analyze the design procedures.

CO3: State the fundamentals of computer systems and analyze the execution of an instruction.

CO4: Analyze different types of control design and identify hazards.

CO5: Identify the characteristics of various memory systems and I/O communication.

CO –PO-PSO MAPPING

CO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	3	3	3	3	3	2	1	1	1	1	2	3	2	3	3
2	3	3	3	3	2	1	1	1	1	1	2	3	1	2	2
3	3	3	3	3	2	2	1	1	1	1	2	3	2	3	1
4	3	3	3	3	1	1	1	1	1	1	1	2	1	3	1
5	3	3	3	3	1	2	1	1	1	1	1	2	1	2	1
Avg.	3	3	3	3	1.8	1.6	1	1	1	1	1.6	2.6	1.4	2.6	1.6

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CO – PO – PSO MAPPING

CS3352 FOUNDATION OF DATA SCIENCE

LIST OF COURSE OUTCOMES

CO1: Define the data science process

CO2: Understand different types of data description for data science process

CO3: Gain knowledge on relationships between data

CO4: Use the Python Libraries for Data Wrangling

CO5: Apply visualization Libraries in Python to interpret and explore data

CO –PO-PSO MAPPING

CO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	2	2	1	2	2	-	-	-	1	1	1	2	2	2	2
2	2	1	-	1	1	-	-	-	2	1	1	2	2	3	1
3	2	2	1	2	2	1	1	-	1	2	1	3	2	2	3
4	3	2	2	1	2	-	-	-	1	1	2	2	3	3	2
5	2	2	1	2	2	-	-	-	1	1	1	2	2	2	2
Avg.	2	2	1	2	2	1	1	-	1	1	1	2	2	2	2

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CO – PO – PSO MAPPING

CD3291 DATA STRUCTURES AND ALGORITHMS

LIST OF COURSE OUTCOMES

CO1:Explain abstract data types

CO2:Design, implement, and analyze linear data structures, such as lists, queues, and stacks, according to the needs of different applications

CO3:Design, implement, and analyze efficient tree structures to meet requirements such as searching, indexing, and sorting

CO4:Model problems as graph problems and implement efficient graph algorithms to solve them

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	1	2	2	3	1	-	-	-	2	-	2	1	1	1
2	2	3	2	2	2	-	-	-	2	-	2	2	3	2
3	2	2	3	2	3	-	-	-	3	-	2	2	3	2
4	3	3	3	3	1	-	-	-	3	-	2	2	3	2
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVg.	2	3	3	3	2	-	-	-	3	-	2	2	3	2

1 - low, 2 - medium, 3 - high, '-' - no correlation

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CO – PO – PSO MAPPING

CD3281 DATA STRUCTURES AND ALGORITHMS LABORATORY

LIST OF COURSE OUTCOMES

CO1: Implement Linear data structure algorithms.
CO2: Implement applications using Stacks and Linked lists.
CO3: Implement Binary Search tree and AVL tree operations.
CO4: Implement graph algorithms.
CO5: Analyze the various searching and sorting algorithms.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	3	2	1	1	1	-	-	-	2	3	1	2	1	2
2	3	3	2	-	1	-	-	-	2	3	1	2	2	2
3	2	2	2	1	1	-	-	-	2	3	1	2	1	3
4	3	1	2	1	1	-	-	-	2	3	1	2	1	3
AVg.	2.75	2	1.75	1	1	-	-	-	2	3	1	2	1.25	2.5

CO – PO – PSO MAPPING

CS3361 DATA SCIENCE LABORATORY

LIST OF COURSE OUTCOMES

CO1: Make use of the python libraries for data science.

CO2: Make use of the basic Statistical and Probability measures for data science.

CO3: Perform descriptive analytics on the benchmark data sets.

CO4: Perform correlation and regression analytics on standard data sets.

CO5: Present and interpret data using visualization packages in Python.

CO –PO-PSO MAPPING

CO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	3	2	1	1	-	-	-	-	1	3	3	3	1	3	2
2	3	2	2	3	1	-	-	-	3	1	3	2	1	3	3
3	3	2	1	3	1	-	-	-	2	1	1	1	3	2	3
4	2	3	1	3	-	-	-	-	2	3	2	3	3	3	1
5	1	2	3	1	1	-	-	-	2	1	3	1	1	3	3
Avg.	2	2	2	2	1	-	-	-	2	2	2	2	2	3	2

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CO – PO – PSO MAPPING

CS3391 OBJECT ORIENTED PROGRAMMING

LIST OF COURSE OUTCOMES

CO1: Apply the concepts of classes and objects to solve simple problems.

CO2: Develop programs using inheritance, packages and interfaces.

CO3: Make use of exception handling mechanisms and multithreaded model to solve real world problems.

CO4: Build Java applications with I/O packages, string classes, Collections and generics concepts.

CO5: Integrate the concepts of event handling and JavaFX components and controls for developing GUI based applications.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	1	2	2	1	-	-	-	-	1	1	2	2	1	2
2	1	2	1	1	-	-	-	-	2	-	2	2	2	2
3	2	2	2	1	1	1	-	-	3	-	3	2	2	3
4	2	3	3	2	-	1	1	-	3	-	3	3	2	3
5	3	3	3	2	1	1	1	-	3	-	3	3	3	3
Avg.	2	2	2	1	1	1	1	-	2	1	3	2	2	3

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CO – PO – PSO MAPPING

CS3381 OBJECT ORIENTED PROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1: Design and develop java programs using object-oriented programming concepts.

CO2: Develop simple applications using object-oriented concepts such as   package, exceptions.

CO3: Implement multithreading, and generics concepts.

CO4: Create GUIs and event driven programming applications for real world problems.

CO5: Implement and deploy web applications using Java.

CO –PO-PSO MAPPING

CO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	2	1	2	1	-	-	-	-	1	2	2	2	1	2	3
2	2	1	3	1	-	-	-	-	2	3	3	2	1	3	1
3	2	2	1	2	1	-	-	-	1	2	1	3	2	3	2
4	2	2	1	3	-	-	-	-	3	1	1	1	2	1	2
5	1	3	3	1	3	-	-	-	1	1	1	1	2	1	2
Avg.	2	2	2	2	2	-	-	-	2	2	2	2	2	2	2

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CO – PO – PSO MAPPING

CS3452 THEORY OF COMPUTATION

LIST OF COURSE OUTCOMES

CO1: Construct automata theory using Finite Automata
CO2: Write regular expressions for any pattern
CO3: Design context free grammar and Pushdown Automata
CO4: Design Turing machine for computational functions
CO5: Differentiate between decidable and undecidable problems

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	1	3	2	3	-	-	-	-	1	1	2	3	1	3
2	2	2	3	2	1	-	-	-	3	3	2	3	3	1
3	2	2	3	2	1	-	-	-	1	3	1	2	1	2
4	2	2	2	1	-	-	-	-	1	3	3	2	1	3
5	2	2	2	1	1	-	-	-	1	1	3	2	3	1
Avg.	2	2	2	2	1	-	-	-	1	2	2	2	2	2

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CO – PO – PSO MAPPING
CS3491 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

LIST OF COURSE OUTCOMES

CO1: Use appropriate search algorithms for problem solving

CO2: Apply reasoning under uncertainty

CO3: Build supervised learning models

CO4: Build ensembling and unsupervised models

CO5: Build deep learning neural network models

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	-	-	1	-	1	-	-	-	2	1	2	2	1	2
2	-	-	-	-	1	-	-	-	2	1	2	2	1	2
3	-	-	1	-	-	-	2	-	1	-	3	3	2	2
4	1	-	-	-	1	-	-	-	2	-	3	2	1	2
5	1	-	1	-	1	-	-	-	2	-	2	2	2	2
Avg.	1	-	1	-	1	-	2	-	2	1	2	2	1	2

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CO – PO – PSO MAPPING

CB3401 DATABASE MANAGEMENT SYSTEMS AND SECURITY

LIST OF COURSE OUTCOMES

CO1: Model an application's data requirements using conceptual modeling and design database schemas based on the conceptual model.

CO2: Formulate solutions to a broad range of query problems using relational algebra/SQL. CO3: Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database.

CO4: Run transactions and estimate the procedures for controlling the consequences of concurrent data access.

CO5: Understand and handle security issues in database management systems

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	1	2	2	1	1	-	1	-	2	-	2	2	3	2
2	1	2	2	1	1	-	1	-	2	-	3	2	3	3
3	2	1	2	1	2	-	2	-	1	-	3	3	3	3
4	2	2	3	2	1	-	2	-	2	-	3	2	3	3
5	2	2	3	2	2	-	1	-	2	2	3	3	3	3
Avg.	2	2	2	1	1	-	1	-	2	2	3	2	3	3

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CO – PO – PSO MAPPING

CB3402 OPERATING SYSTEMS AND SECURITY

LIST OF COURSE OUTCOMES

CO1:To gain understanding on the concepts of Operating Systems.

CO2:To acquire knowledge on process management concepts including scheduling, synchronization, threads and deadlock.

CO3: To have understanding on memory, file and I/O management activities of OS.

CO4: To understand security issues in operating systems and appreciate the need for security models

CO5: To gain exposure to the operating systems security models of WINDOWS and UNIX OS

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	3	3	3	3	3	2	1	1	1	1	2	3	2	3
2	3	3	3	3	2	1	1	1	1	1	2	3	1	2
3	3	3	3	3	2	2	1	1	1	1	2	3	2	3
4	3	3	3	3	1	1	1	1	1	1	1	2	1	3
5	3	3	3	3	1	2	1	1	1	1	1	2	1	2
Avg.	3	3	3	3	3	2	1	1	1	1	2	3	2	3

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CO – PO – PSO MAPPING

CB3491 CRYPTOGRAPHY AND CYBER SECURITY

LIST OF COURSE OUTCOMES

CO1: Understand the fundamentals of networks security, security architecture, threats and vulnerabilities

CO2: Apply the different cryptographic operations of symmetric cryptographic algorithms CO3: Apply the different cryptographic operations of public key cryptography

CO4: Apply the various Authentication schemes to simulate different applications.

CO5: Understand various cyber crimes and cyber security.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	3	2	1	2	2	-	-	-	1	-	-	1	2	3
2	3	3	3	3	3	-	-	-	2	-	-	1	3	3
3	3	3	3	3	3	-	-	-	2	-	-	1	3	3
4	3	3	3	3	3	-	-	-	2	-	-	1	3	3
5	3	2	3	2	3	-	-	-	3	-	-	2	3	2
Avg.	3	2.6	2.6	2.6	2.8	-	-	-	2	-	-	1.2	1	2.8

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CO – PO – PSO MAPPING

GE3451 ENVIRONMENTAL SCIENCES AND SUSTAINABILITY

LIST OF COURSE OUTCOMES

CO1: To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation.

CO2: To identify the causes, effects of environmental pollution and natural disasters and contributeto the preventive measures in the society.

CO3: To identify and apply the understanding of renewable and non renewable resources and contribute to the sustainable measures to preserve them for future generations.

CO4: To recognize the different goals of sustainable development and apply them for suitable technological advancement and societal development.

CO5: To demonstrate the knowledge of sustainability practices and identify green materials, energy cycles and the role of sustainable urbanization.

CO –PO-PSO MAPPING

CO	PO												PSO		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	2	1	-	-	-	2	3	-	-	-	-	2	-	-	-
2	3	2	-	-	-	3	3	-	-	-	-	2	-	-	-
3	3	-	1	-	-	2	2	-	-	-	-	2	-	-	-
4	3	2	1	1	-	2	2	-	-	-	-	2	-	-	-
5	3	2	1	-	-	2	2	-	-	-	-	1	-	-	-
Avg.	2.8	1.8	1	1	-	2.2	2.4	-	-	-	-	1.8	-	-	

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CO – PO – PSO MAPPING

CB3411 CRYPTOGRAPHY AND CYBER SECURITY LABORATORY

LIST OF COURSE OUTCOMES

CO1: Develop a code for classical encryption techniques.
CO2: Build a symmetric and asymmetric algorithms.
CO3: Construct a code for various Authentication schemes.
CO4: Apply the principles of digital signature

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	3	3	3	3	3	-	-	-	3	-	-	1	3	3
2	3	3	3	3	3	-	-	-	3	-	-	1	3	3
3	3	3	3	3	3	-	-	-	3	-	-	1	3	3
4	3	3	3	3	3	-	-	-	3	-	-	1	3	3
5	3	3	3	3	3				3			1	3	3
AVg.	3	3	3	3	3	-	-	-	3	-	-	1	3	3

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CO – PO – PSO MAPPING

CB3412 DATABASE MANAGEMENT SYSTEMS AND SECURITY LABORATORY

LIST OF COURSE OUTCOMES

CO1: Create databases with different types of key constraints.
CO2: Write simple and complex SQL queries using DML and DCL commands. 91
CO3: Realize database design using 3NF and BCNF.
CO4: Use advanced features such as stored procedures and triggers.
CO5: Secure databases and mitigate attacks on databases.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	2	1	2	1	3	1	2	-	2	2	1	2	2	3
2	2	2	2	1	3	1	2	-	2	2	2	2	2	3
3	2	2	3	1	3	1	2	-	3	2	2	2	2	3
4	2	3	3	2	3	1	2	-	3	2	3	3	3	3
5	3	3	3	2	3	1	2	-	3	1	3	3	3	3
AVg.	2	2	3	1	3	1	2	-	3	2	2	2	2	3

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CO – PO – PSO MAPPING

CS3591 COMPUTER NETWORKS

LIST OF COURSE OUTCOMES

CO 1: Explain the basic layers and its functions in computer networks.

CO 2: Understand the basics of how data flows from one node to another.

CO 3: Analyze routing algorithms.

CO 4: Describe protocols for various functions in the network.

CO 5: Analyze the working of various application layer protocols.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	-	2	-	-	-	-	-	-	-	-	-	-	3	-
2	-	-	-	-	2	-	-	-	-	-	-	2	-	2
3	-	2	-	-	3	-	-	-	-	-	-	-	-	3
4	-	-	-	1	2	-	-	-	-	3	-	-	-	-
5	-	3	2	-	-	-	-	-	-	-	-	-	-	-
AVg.	-	2	-	-	2	-	-	-	-	1	-	-	1	1

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CO – PO – PSO MAPPING

CB3591 ENGINEERING SECURE SOFTWARE SYSTEMS

LIST OF COURSE OUTCOMES

CO1: Identify various vulnerabilities related to memory attacks.
CO2: Apply security principles in software development.
CO3: Evaluate the extent of risks.
CO4: Involve selection of testing techniques related to software security in the testing phase of software development. CO5: Use tools for securing software.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	2	3	2	3	2	-	-	-	2	1	2	2	-	2
2	2	2	2	3	3	-	-	-	2	1	2	2	-	3
3	1	2	2	2	1	-	-	-	1	1	2	1	1	2
4	2	3	2	2	2	-	-	-	2	1	2	2	-	1
5	2	1	2	2	3	-	-	-	2	1	1	2	2	1
Avg.	1.8	2.2	2	2.4	2.2	-	-	-	1.8	1	1.8	1.8	1.5	1.80

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CO – PO – PSO MAPPING

CB3601 CYBER FORENSICS

LIST OF COURSE OUTCOMES

CO1: Understand the basics of cyber crime and computer forensics

CO2: Apply a number of different computer forensic tools to a given scenario

CO3: Analyze and validate forensics data

CO4: Understand Admissibility of evidence in India with Cyber laws and Case Studies

CO5: Identify the vulnerabilities in a given network infrastructure

CO6: Implement real-world hacking techniques to test system security.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	-	-	-	-	-	-	1	1	-	-	-	2	-	3
2	2	1	1	2	-	-	-	-	-	-	-	2	2	1
3	2	2	1	1	2	-	-	-	-	-	-	1	3	-
4	-	-	-	-	-	-	1	2	-	-	-	1	-	2
5	-	3	-	2	-	-	1	1	-	-	-	2	2	1
Avg.	2	2	1	2	2	-	1	1	-	-	-	2	2	2

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CO – PO – PSO MAPPING

CS3551   DISTRIBUTED COMPUTING

LIST OF COURSE OUTCOMES

CO1: Explain the foundations of distributed systems (K2)
CO2: Solve synchronization and state consistency problems (K3)
CO3: Use resource sharing techniques in distributed systems (K3)
CO4: Apply working model of consensus and reliability of distributed systems (K3)
CO5: Explain the fundamentals of cloud computing (K2)

CO –PO-PSO MAPPING

CO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	2	2	3	3	1	-	-	-	2	1	3	3	2	1	1
2	1	3	2	1	2	-	-	-	2	2	2	2	1	3	2
3	2	2	1	3	3	-	-	-	3	2	1	1	1	2	1
4	1	2	2	3	1	-	-	-	3	3	2	1	3	1	1
5	3	3	1	2	3	-	-	-	3	3	3	1	3	2	3
Avg.	1.8	2.4	1.8	2.4	2	-	-	-	2.6	2.2	2.2	1.6	2	1.8	1.6

CO – PO – PSO MAPPING

CB3602 NETWORK SECURITY

LIST OF COURSE OUTCOMES

CO1: Describe computer and network security fundamental concepts and principles.

CO2: Acquire the knowledge of various authentication protocols, key exchange mechanism, and digital certificates.

CO3 : To get better knowledge on fundamental concepts of cryptography, encryption and hashing techniques.

CO4: Identify and assess different types of threats and attacks such as social engineering, rootkit, and botnets,etc.

CO5: Acquire Demonstrate the ability to select among available network security technology and protocols such as IDS, firewalls, SSL , TLS, etc

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	3	2	1	1	1	-	-	-	1	-	-	1	1	3
2	3	3	3	3	3	-	-	-	2	-	-	1	3	3
3	3	3	3	3	3	-	-	-	2	-	-	1	3	3
4	3	3	2	3	2	-	-	-	3	-	-	3	3	3
5	2	3	3	3	3	-	-	-	3	-	-	2	3	3
Avg.	3	2.8	2.4	2.2	2.8	-	-	-	2.2	-	-	1.6	2.6	3

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CO – PO – PSO MAPPING

CCS375 WEB TECHNOLOGIES

LIST OF COURSE OUTCOMES

CO1: Construct a basic website using HTML and Cascading Style Sheets
CO2: Build dynamic web page with validation using Java Script objects and by applying differentevent handling mechanisms.
CO3: Develop server side programs using Servlets and JSP.
CO4: Construct simple web pages in PHP and to represent data in XML format.
CO5: Develop interactive web applications.

CO –PO-PSO MAPPING

CO's	PO's												PSO's	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	2	2	3	3	3	-	-	-	2	-	-	3	3	-
2	3	2	3	2	3	-	-	-	2	-	-	3	3	-
3	1	2	2	3	3	-	-	-	1	-	-	2	2	2
4	3	3	3	2	3	-	-	-	2	-	-	3	3	-
5	2	2	3	1	2	-	-	-	3	-	-	2	3	1
Avg.	2.2	2.2	2.8	2.2	2.8	-	-	-	2	-	-	2.6	2.8	1.5

CO – PO – PSO MAPPING

CS3691 EMBEDDED SYSTEMS AND IOT

LIST OF COURSE OUTCOMES

CO1: Explain the architecture of embedded processors.
CO2: Write embedded C programs.
CO3: Design simple embedded applications.
CO4: Compare the communication models in IOT
CO5: Design IoT applications using Arduino/Raspberry Pi /open platform.

CO –PO-PSO MAPPING

CO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	3	3	3	3	-	-	-	-	1	2	3	3	2	1	3
2	2	1	3	2	2	-	-	-	1	2	2	3	3	1	3
3	3	1	3	3	1	-	-	-	1	2	1	1	1	3	3
4	3	2	3	2	1	-	-	-	1	2	2	3	2	2	1
5	2	3	3	2	2	-	-	-	1	3	3	2	3	1	3
Avg.	2.6	2	3	2.4	1.5	-	-	-	1	2.2	2.2	2.4	2.2	1.6	2.6