

SWAMI VIVEKANAND SUBHARTI UNIVERSITY, MEERUT

SUBHARTI INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

[ODD SEMESTER]

PROGRAM OUTCOMES (POS)

PO 1:

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2:

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO 3:

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4:

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5:

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6:

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7:

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8:

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9:

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10:

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11:

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12:

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

SUBJECT NAME: Mathematical Foundation of Computer Science

SUBJECT CODE: MCSE-101

BRANCH/YEAR/SEMESTER: CSE/1st/1st

COURSE OUTCOMES (COs)

CO1	Understand and apply conditional expectation to solve problems of probabilistic models.
CO2	Apply the methods of statistical estimations and testing to data analysis problems.
CO3	Understand the concept of Matching and Cover in graphs needed for optimization problems.
CO4	Optimize network flow using graph theory model.

SUBJECT NAME: INTRODUCTION TO INTELLIGENT SYSTEMS

SUBJECT CODE: MCSE-113)

BRANCH/YEAR/SEMESTER: CSE/1st Year/1st Semester

COURSE OUTCOME:

CO1	Understand the foundations to intelligent systems and artificial neural networks
CO2	Understanding the concepts of fuzzy logic and genetic algorithms
CO3	To be able to describe basic AI algorithms (Standard Search Algorithm or resolution principle).
CO4	Understanding the various issues in knowledge representation and knowledge base structures
CO5	To be able to design and carry out an empirical evaluation of different algorithms on a problem formulization.

SUBJECT NAME: DISTRIBUTED SYSTEM

SUBJECT CODE: MCSE-122

BRANCH/YEAR/SEMESTER: CSE/1st /1st

COURSE OUTCOMES (COs)

CO1	Understand distributed database management system and its components.
CO2	Analyze how database implementation is affected by different levels of data and process distribution
CO3	Apply transaction management principles in a distributed environment.
CO4	Understand the importance of reliability and recovery from failures
CO5	Identify the effect of distributed database environment on database design.

SUBJECT NAME: RESEARCH METHODOLOGY & IPR

SUBJECT CODE: METC-101

BRANCH/YEAR/SEMESTER: CSE/1st /1st

COURSE OUTCOMES (COs)

CO1	Adopt various principles and concepts of research methodology to their research problems.
CO2	Apply appropriate method of data collection and analyze using statistical methods.
CO3	Formulate research methodology for a given engineering and management problem situation
CO4	Analyze research outputs in a structured manner and prepare report as per the technical and ethical standards.

SUBJECT NAME: ADVANCED DATA STRUCTURE

SUBJECT CODE: MCSE-102

BRANCH/YEAR/SEMESTER: CSE/1st /1st

COURSE OUTCOMES (COs)

CO1	Understand the implementation of dictionaries and apply various hashing techniques in real life applications
CO2	Analyses and compare various operations of Skip Lists, Red-Black Trees, B-trees and Splay trees
CO3	Compare various comparison and non-comparison based sorting techniques
CO4	Apply text processing data structures and algorithms in real life applications and compare various pattern matching algorithms.
CO5	Identify suitable data structures and develop algorithms for computational geometry problems.

SUBJECT NAME: DISASTER MANAGEMENT

SUBJECT CODE: METC-112

SEMESTER: CSE/1st/1st

COURSE OUTCOMES (COs)

CO1	To increase the knowledge and understanding of the disaster phenomenon and, its factors.
CO2	Understand the relationship of hazard, risk and vulnerability
CO3	To obtain the skills in role of education and training in disaster prevention
CO4	To ensure skills in post disaster management activities.
CO5	To get the knowledge in understanding various prone zones in India

SUBJECT NAME: Distributed Systems Lab

SUBJECT CODE: MCSE-151

BRANCH/YEAR/SEMESTER: CSE/1st /1st

COURSE OUTCOMES (COs)

CO1: Develop and write SQL queries for a distributed database
CO2: Implement Deadlock Detection Algorithm for Distributed Database using Wait-for Graph to check for Deadlock.
CO3: Design an Enhanced Entity Relationship model and write Object Query Language (OQL) to manage the database
CO4: Implement parallel join and parallel sort algorithms
CO5: Study and work with WEKA tool.

SUBJECT NAME: MOBILE COMPUTING

SUBJECT CODE: CSO-306

BRANCH/YEAR/SEMESTER: CSE/2nd/3rd

COURSE OUTCOMES (COs)

CO1	Enables the students to analyze and compare the various wireless communication technologies.
CO2	Enables the students to visualize the various important steps in GSM communication s Stream flow measurements technique
CO3	Enables the students to analyze the mobile IP and Transport Protocol.
CO4	Enables the students to examine the important aspects of Co-Channel Interference
CO5	Enables the students to apply the knowledge about Handsoff.

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SUBJECT NAME: DATABASE MANAGEMENT SYSTEM

SUBJECT CODE: CSC-301

BRANCH/YEAR/SEMESTER: CSE/2nd/3rd

Course Outcomes (COs)

CO1	To study the Physical and Logical Database Design, Database Modelling Relational Hierarchical and Network Model.
CO2	To understand and use Data Manipulation language to query, Update and Manage a Database.
CO3	To study of Memory structure and stored procedures in SQL.
CO4	To understand the concepts of Functional dependency and Normalization.
CO5	To develop an understanding of essential DBMS concepts such as Database Security, Concurrency Control and distributed Database.

SUBJECT NAME: Minor Project

SUBJECT CODE: CSL-351

BRANCH/YEAR/SEMESTER: CSE/2nd /3rd

COURSE OUTCOMES (COs)

CO1	Identify and Finalize problem statement by surveying variety of domains.
CO2	Perform requirement analysis and identify design methodologies
CO3	Apply advanced programming techniques
CO4	Present technical report by applying different visualization tools and Evaluation metrics

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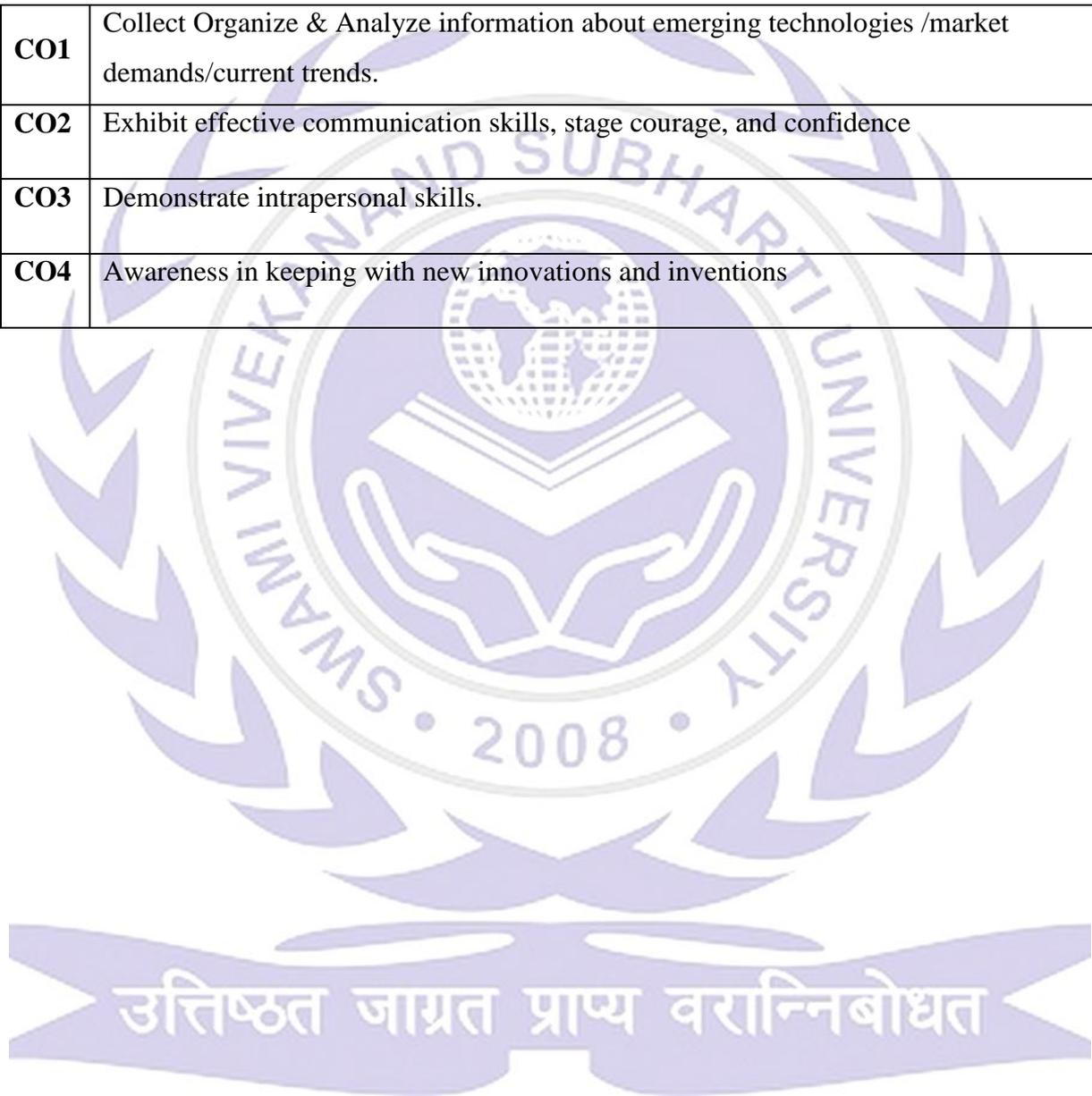
SUBJECT NAME: Seminar Based on Industrial Training

SUBJECT CODE: CSL-352

BRANCH/YEAR/SEMESTER: Cyber/2nd /3rd

COURSE OUTCOMES (COs)

CO1	Collect Organize & Analyze information about emerging technologies /market demands/current trends.
CO2	Exhibit effective communication skills, stage courage, and confidence
CO3	Demonstrate intrapersonal skills.
CO4	Awareness in keeping with new innovations and inventions



(EVEN SEMESTER)

SECOND SEMESTER:

SUBJECT NAME: SOFT COMPUTING

SUBJECT CODE: MCSE-202

BRANCH/YEAR/SEMESTER: CSE/1st/2nd

COURSE OUTCOME:

CO1	To be able to understand about Artificial Neural Networks and various categories of ANN and Back propagation networks .
CO2	Understand about the soft computing concepts and techniques and foster their abilities in designing and implementing soft computing based solutions for real-world and engineering problems..
CO3	To be able to understand the fuzzy systems, fuzzy logic and its applications.
CO4	To apply the calculations based on fuzzy theory and crisp theory values.
CO5	To be able to understand the working principle of genetic algorithms and its applications

SUBJECT NAME: HUMAN AND COMPUTER INTERACTION

SUBJECT CODE: MCSE-221

BRANCH/YEAR/SEMESTER: CSE/1st/2nd

Course Outcomes (COs)

CO1	To Understand the structure of models and theories of human computer interaction and vision.
CO2	To Design an interactive web interface on the basis of models studied.
CO3	To Analyze the cognitive models and requirements of the stakeholders
CO4	To Explore the elements of the mobile eco system design.
CO5	To Evaluate the elements of speech recognition system.

SUBJECT NAME: ADVANCE ALGORITHM

SUBJECT CODE: MCSE-201

BRANCH/YEAR/SEMESTER: CSE/1st/2nd

Course Outcomes (COs)

CO1	The Student should be able to know about benefits and use of different sorting techniques.
CO2	The student should be able to understand the matching techniques in graphs.
CO3	The Student should be able to know about computation of matrix and flow of network.
CO4	The Student should be able to find the shortest path between different nodes.
CO5	The Student should be able to understand non polynomial issues.

SUBJECT NAME: Data Preparation and Analysis

SUBJECT CODE: MCSE-211

BRANCH/YEAR/SEMESTER: CSE/1st /1st

COURSE OUTCOMES (COs)

CO1	The student will understand the concept of data insertion and its applications which is used for processing of data.
CO2	To understand various data pre-processing techniques to improve the quality of data and efficiency and the ease of the excavating process.
CO3	The student will understand the concept of data classification methods.
CO4	The student will understand the concept of association rule mining methods
CO5	To understand the unsupervised learning techniques and the various defined algorithm used for data clustering.
CO6	The student will understand the Time series algorithm and co-relation of data techniques and the popular extraction and time series tools used.

SUBJECT NAME: English for Research Paper Writing SUBJECT CODE: METC-211

BRANCH/YEAR/SEMESTER: CSE/1st/2nd

COURSE OUTCOMES (COs)

CO1	Understand the significance and application of technical communication and apply fundamentals of English grammar to make research writing effective.
CO2	Apply the elements of technical writing to produce effective research papers.
CO3	Read and analyses automated texts.
CO4	Develop the ability to write technical article
CO5	Develop research insight by appreciative the key skills of research.

SUBJECT NAME: Advanced Algorithm lab

SUBJECT CODE: MCSE-251

BRANCH/YEAR/SEMESTER: CSE/1st /2nd

COURSE OUTCOMES (COs)

CO1	Identify Data Structures, Design paradigms and Computational complexity in the design of simple tool
CO2	Demonstrate relationships among NP-Complete Problem
CO3	Implement the approximate algorithms approach to solve some NP-Complete Problems
CO4	Demonstrate randomness by solving some examples.
CO5	Implement algorithms for geometry and large data-sets.