DON BOSCO INSTITUTE OF TECHONOLGY, KURLA, MUMBAI

Department of Comps , (Even semester, 2017-18)

SE Comps

Course Name:	AM-IV		
Course Code	CSC401		
Faculty Name:	Revathy S.		
Year	2	**Sem**	IV

CO Number	Course Outcome
CSC401.1	Students will be able to Obtain Eigen values and Eigen vectors for a given square matrix
CSC401.2	Students will be able to (i) Infer properties of Eigen values and Eigen vectors (ii) Check if a matrix is derogatory or not (iii) Calculate conditional Probabilities using Bayes' theorem (iv) Obtain pdf and cdf of discrete and continuous random variables (v) Use Linear and Nonlinear Programming methods to solve optimization problems
CSC401.3	Students will be able to (i) Construct diagonal matrices using the concept of similarity (ii) Verify Cayley- Hamilton theorem (iii) Obtain required probabilities using Bayes' theorem (iv) Obtain MGF and hence obtain the mean and variance of a random variable (v) Obtain moments and probabilities of Binomial, Poisson and Normal distributions (vi) Use Z-test, t- test and Chi-square test to test hypotheses (vii) Use Linear and Nonlinear Programming methods to solve optimization problems
CSC401.4	Students will be able to Obtain probabilities and z-values for normal distributions

Course Name:	AOA		
Course Code	CSC402		
Faculty Name:	Ditty Varghese		
Year	2	**Sem**	IV

CO Number	Course Outcome
CSC402.1	Ability to describe the properties of an algorithm, to know why is it necessary to analyze algorithms and be familiarized with conventions/specifications of algorithmic analysis.Ability to calculate time complexity and space complexity of simple algorithms using generic method.
CSC402.2	Ability to apply,design and analyze different programming problems using different algorithmic strategies and techniques such as divide and conquer, greedy, dynamic, backtracking and branch & bound.
CSC402.3	Ability to discuss, design and analyze different string matching algorithms and relate it with real time scenarios.
CSC402.4	Ability to select appropriate problem solving strategies by comparing, contrasting and evaluating which strategy is better.

Course Name:	COA		
Course Code	CSC403		
Faculty Name:	Sejal Chopra		
Year	2	**Sem**	IV

CO Number	Course Outcome
CSC403.1	Abilty of the student to understand and describe the basics of computer architecture
CSC403.2	Ability to estimate the output of ALU operations for fixed or floating point representations and system performance
CSC403.3	Ability to classify and compare pipelined and parallel processing architectures with analysis of different hazards.
CSC403.4	Ability to design,construct and manage control unit or memory system.
CSC403.5	Ability to design an optimum processor architecture executing a specific program.
CSC403.6	Ability to engage students in self-learning activity/independent activity to prepare a report on "Recent Developments in processor architecture and organisation.

Course Name:	CG		
Course Code	CSC404		
Faculty Name:	Dipti Jadhav		
Year	2	**Sem**	IV

CO Number	Course Outcome
CSC404.1	Ability to understand the basics of computer graphics, different graphics systems and applications of computer graphics.
CSC404.2	Ability to implement various algorithms for scan conversion and filling of basic objects and their comparative analysis.(Using OpenGL,C)
CSC404.3	Ability to Implement 2D and 3D geometric transformations on graphics objects and their application in composite form.(Using OpenGL,C)
CSC404.4	Ability to extract scene with different clipping methods and its transformation to graphics display device by designing and implementing clipping algorithms.(Using OpenGL,C)
CSC404.5	Ability to render projected objects to naturalize the scene in 2D view and use of illumination models for this
CSC404.6	Ability to create interactive graphics applications in (C/OpenGL) using one or more graphics application programming interfaces.

Course Name:	OS		
Course Code	CSC405		
Faculty Name:	Shainila Mulla		
Year	2	**Sem**	IV

CO Number	Course Outcome
CSC405.1	Ability to describe how computing resources (such as CPU and memory) are managed by the operating system, describe the basic principles used in the design of modern operating systems.
CSC405.2	Ability to compare and contrast the common algorithms used for both pre-emptive and non-pre-emptive scheduling of tasks in operating systems, such a priority, performance comparison, and fair-share schemes. Contrast kernel and user mode in an operating system .
CSC405.3	Ability to describe the objective and functions of modern operating systems, memory hierarchy and cost-performance trade-offs, the operation, implementation and performance of modern operating systems.
CSC405.4	Ability to summarise the full range of considerations in the design of file systems,summarise techniques for achieving synchronisation in an operation system.
CSC405.5	Ability to install various operating systems and analyse their performances and identify appropriate applications for them

Course Name:	AOA Lab		
Course Code	CSL401		
Faculty Name:	Ditty Varghese		
Year	2	Sem	IV

CO Number	Course Outcome
CSL401.1	Ability to describe the properties of an algorithm, to know why is it necessary to analyze algorithms and be familiarized with conventions/specifications of algorithmic analysis. Ability to calculate time complexity and space complexity of simple algorithms using generic method.
CSL401.2	Ability to apply,design and analyze different programming problems using different algorithmic strategies and techniques such as divide and conquer, greedy, dynamic, backtracking and branch & bound.
CSL401.3	Ability to discuss, design and analyze different string matching algorithms and relate it with real time scenarios.
CSL401.4	Ability to select appropriate problem solving strategies by comparing, contrasting and evaluating which strategy is better.

Course Name:	CG Lab		
Course Code	CSL402		
Faculty Name:	Dipti Jadhav		
Year	2	Sem	IV

CO Number	Course Outcome
CSL402.1	Implement various output and filled area primitive algorithms using C/ OpenGL
CSL402.2	Apply transformations and clipping algorithms on graphical objects.
CSL402.3	Implementation of curve and fractal generation.
CSL402.4	Ability to create interactive graphics applications in (C/OpenGL) using one or more graphics application programming interfaces.

Course Name:	Processor Architecture Lab		
Course Code	CSL403		
Faculty Name:	Sejal Chopra		
Year	2	Sem	IV

CO Number	Course Outcome
CSL403.1	Ability to compile a code for computer operations.
CSL403.2	Ability to estimate the output of computer hardware operations using simulator.
CSL403.3	Ability to execute few programs on microprocessor kits .
CSL403.4	Ability to explain and compare various buses on system or compare multi-core processors.
CSL403.5	Ability to engage students in self-learning activity through a mini-project on Arduino

Course Name:	OS Lab		
Course Code	CSL404		
Faculty Name:	Shainila Mulla		
Year	2	Sem	IV

CO Number	Course Outcome
CSL404.1	Ability to Understand and execute basic operating system commands
CSL404.2	Ability to write shell scripts and shell commands using kernel APIs.
CSL404.3	Ability to explore various system calls.
CSL404.4	Ability to implement and analyze different process scheduling algorithms
CSL404.5	Ability to implement and analyze different memory management algorithms.
CSL404.6	Ability to evaluate process management techniques and deadlock handling using CPU-OS simulator .

Course Name:	OST Lab		
Course Code	CSL405		
Faculty Name:	Kadambari D.		
Year		Sem	

CO Number	Course Outcome
CSL405.1	Ability to describe basic concepts in python and perl.
CSL405.2	Ability to demonstrate File handling operations, directories and text processing .
CSL405.3	Ability to develop program for data structure using built in functions in python.
CSL405.4	Ability to use Django web framework for developing python based web application.
CSL405.5	Ability to apply use GUI concepts in Python.
CSL405.6	Ability to develop simple project in Python/ Perl

TE Comps			
Course Name:	SPCC		
Course Code	CPC601		
Faculty Name:	Mayura Gavhane		
Year	3	**Sem**	VI

CO Number	Course Outcome
CPC601.1	Explain the basics of system programs like editors, compiler, assembler, linker, loader, interpreter, debugger and analyze various concepts of assembler
CPC601.2	Interpret how linker and loader create an executable program from an object module created by assembler and Able to apply macros to increase readability and productivity.
CPC601.3	Describe different phases of Compiler and be able to design lexical analyzer and implement different types of parsers using powerful compiler generation tools such as Lex and YACC
CPC601.4	Relate role of syntax directed translation, intermediate code generation, code generation and run time storage management in language designing and apply optimization principles on given code

Course Name:	SE		
Course Code	CPC602		
Faculty Name:	Nilakshi Joshi		
Year	3	**Sem**	VI

CO Number	Course Outcome
CPC602.1	The student will understand and demonstrate basic knowledge in software engineering.
CPC602.2	The student will plan, design, develop and validate the software project.
CPC602.3	The student will apply basic principles of software project management for software project.
CPC602.4	The student will apply software engineering methodology to create high quality WebApp.
CPC602.5	The Student will have understanding of sound engineering principle.

Course Name:	DD		
Course Code	CPC603		
Faculty Name:	Kalpita Wagaskar		
Year	3	**Sem**	VI

CO Number	Course Outcome
CPC603.1	Student should be able to demonstrate understanding towards principles and foundations of distributed databases which includes architecture, design issues, issues and technique related to distributed query and transaction processing
CPC603.2	Ability to design distributed schema in terms of fragmentation and allocation
CPC603.3	An ability to provide solution for a given case by identifying and defining computing requirements appropriate to its solution
CPC603.4	Ability to represent unstructured data using XML
CPC603.5	Student should be able to carry out independent work and work effectively as a team

Course Name:	MCC		
Course Code	CPC604		
Faculty Name:	Amiya Kumar Tripathy		
Year	3	**Sem**	VI

CO Number	Course Outcome
CPC604.1	Understand the basic mobile communication framework.
CPC604.2	To make familiar with GSM, GPRS and CDMA Cellular architecture.
CPC604.3	Setup and configure wireless access points and know the concept of Mobile IP.
CPC604.4	Implement small android based applications and simulation.
CPC604.5	To put forth the concepts of mobility management and WLANs

Course Name:	PM		
Course Code	CPE6012		
Faculty Name:	Imran Ali Mirza		
Year	3	**Sem**	VI

CO Number	Course Outcome
CPE6012.1	Learner will be able to define characteristics of a project
CPE6012.2	Learner will be able to appreciate project management principles, risk in environment and the management challenges for effective project management.
CPE6012.3	Learner will be able to apply the project management principles across all phases of a project.
CPE6012.4	Learner will be able to demonstrate use of tools and techniques for the Management of a project plan, monitor and controlling a project schedule and budget, tracking project progress.

Course Name:	German		
Course Code	CPE6013		
Faculty Name:	Ajit		
Year	3	**Sem**	VI

CO Number	Course Outcome
CPE6013.1	Learner will be able to read and understand Basic grammar, pronunciation and basic expression.
CPE6013.2	Learner will be able to understand Greetings, beginning of conversation, introduction of oneself, numbers, counting and dates.
CPE6013.3	Learner will be able to reading, comprehension and writing Dialogs, Monologs, Biologs.
CPE6013.4	Learner can able to understand and speak about Family structure, Culture.
CPE6013.5	Learner will be able to Draft e-mails and create simple presentation.

Course Name:	NPL		
Course Code	CPL601		
Faculty Name:	Priya Kaul		
Year	3	**Sem**	VI

CO Number	Course Outcome
CPL601.1	Ability to analyze, summarize and execute different networking commands and Network configuration files with their related options
CPL601.2	Ability to demonstrate the configuration of Linux network, Ethernet card, Linux as a router and remote login services.
CPL601.3	Ability to simulate servers such as Web Server and Linux File Transfer Protocol(FTP) server by installing and configuring their Network Configuration files.
CPL601.4	Ability to develop TCP and UDP client-server applications for iterative and concurrent servers.

BE Comps			
Course Name:	DWM		
Course Code	CPC801		
Faculty Name:	Priya Kaul		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPC801.1	To describe the basic principles, concepts and applications of data warehousing and data mining
CPC801.2	To design a data warehouse for any organization using dimensional modelling and perform OLAP operations for strategic decision making
CPC801.3	To explain Data Extraction, Transformation and Loading process in Data Warehousing
CPC801.4	To demonstrate the appreciation of Data Mining algorithms in real time scenarios
CPC801.5	To simulate basic Data Mining algorithms and methods using modern tools like R, WEKA

Course Name:	HMI		
Course Code	CPC802		
Faculty Name:	Dipti Jadhav		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPC 802.1	Provide the future user interface designer with concepts and strategies for making design decisions.
CPC 802.2	Analyzing existing interface designs, and improve them and Design innovative and user friendly interfaces.
CPC 802.3	Apply HMI in their day-to-day activities.
CPC 802.4	Design and Evaluate application for social and technical task.

Course Name:	PDS		
Course Code	CPC803		
Faculty Name:	Shafaque Syed		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPC803.1	To understand and appreciate the challenges and opportunities faced by parallel and distributed systems.
CPC803.2	Understand and apply the principles and concept in analyzing and designing the parallel and distributed system.
CPC803.3	Understand the middle-ware technologies such as RPC, RMI and object based middle-ware and implement them for applications.
CPC803.4	Apply the key algorithms for coordination, communication and synchronization.

Course Name:	ML		
Course Code	CPE8031		
Faculty Name:	Kalpita W. and Kadambari D.		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPE8031.1	Ability to analyze and appreciate the applications which can use Machine Learning Techniques.
CPE8031.2	Ability to understand regression, classification, clustering methods.
CPE8031.3	Ability to understand the difference between supervised and unsupervised learning methods.
CPE8031.4	Ability to appreciate Dimensionality reduction techniques.
CPE8031.5	Students would understand the working of Reinforcement learning.

Course Name:	DF		
Course Code	CPE8034		
Faculty Name:	Mayura Gavhane		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPE8034.1	Describe various cyber crimes and the role digital forensics play in accordance with the various bodies of law for dealing with crimes
CPE8034.2	Apply the techniques of initial response and forensics duplication in Windows and Linux systems with duplication of hard disk.
CPE8034.3	Demonstrate the techniques of preserving and recovering electronic evidence from the system and its peripherals
CPE8034.4	Analyze the attacks on networks and recovery of the same using forensic techniques principles on given code
CPE8034.5	Summarize the techniques of system investigations using data analysis of Live Windows and Linux systems

Course Name:	BDA		
Course Code	CPE8035		
Faculty Name:	Sana Shaikh		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPE8035.1	Explain the key issues in big data management and its associated applications in intelligent business.
CPE8035.2	Develop problem solving and critical thinking skills in fundamental enabling techniques like Hadoop and Map Reduce and NoSQLin big data analytics.
CPE8035.3	Interpret business models and scientific computing paradigms, and apply software tools for big data analytics.
CPE8035.4	Solve complex real world problems in various apllications like recommender systems, social media applications, health and medical systems etc.

Course Name:	Cloud Computing Lab		
Course Code	CPL801		
Faculty Name:	Ditty Varghese		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPL801.1	Ability to understand the cloud computing architecture styles and the deployment models.
CPL801.2	Ability to apply the concepts of virtualization to create and run virtual machines.
CPL801.3	Ability to create RSS feeds by applying concepts of form and control validation.
CPL801.4	Ability to work as part of a team to implement cloud based mini-projects.

Course Name:	Project -II		
Course Code	CPP802		
Faculty Name:	Sana Shaikh		
Year	4	**Sem**	VIII

CO Number	Course Outcome
CPP802.1	Students will be able to convert the design into a Product/Model/Prototype and validate the results.
CPP802.2	Students will be able to execute the project plan and monitor progress and maintain deadlines.
CPP802.3	Students will be able to summarize the work in the form of technical documentation following ethical practices.