

DON BOSCO INSTITUTE OF TECHNOLOGY, KURLA, MUMBAI

Department of Computer Engineering, (Odd semester, 2016-17)

SE Comps			
Course Name:	Applied Mathematics III		
Course Code	CSC301		
Faculty Name:	Manisha G.		
Year	2	Sem	III
CO Number	Course Outcome		
CSC301.1	Students will be able to (i) Obtain Laplace Transforms for a given standard function of 't' (ii) Obtain Inverse Laplace Transforms for a given simple function of 's' (iii) Define Karl Pearson's correlation coefficient and Spearman's rank correlation coefficient (iv) Define harmonic functions and Orthogonal trajectories		
CSC301.2	Students will be able to (i) Obtain the Laplace Transforms, Inverse Laplace Transforms of combinations of standard functions using the properties of Laplace and Inverse Transforms. (ii) Obtain Karl Pearson's correlation coefficient and Spearman's rank correlation coefficient (iii) Obtain the equations of two lines of regression (iv) Fit the curve by the method of least squares (v) Understand the properties of orthogonal and orthonormal functions (vi) Obtain Fourier series, half-range Fourier series and Fourier sine and cosine series of periodic functions. (vii) Obtain complex form fourier series of functions. (viii) Obtain the Z Transforms, Inverse Z Transforms of combinations of standard functions using the properties of Laplace and Inverse Transforms. (ix) Find Cauchy – Riemann equations to verify if a function is analytic (x) Obtain the harmonic conjugate and orthogonal trajectory of given family. (xi) Define Conformal mapping and obtain the image under given standard transformation (xii) Define and obtain bilinear transformation and its fixed points.		
CSC301.3	Students will be able to (i) Apply Laplace and Inverse Laplace transform concepts to evaluate integrals (ii) Solve initial and boundary value problems using Laplace transform.		
Course Name:	OOPM		
Course Code	CSC302		
Faculty Name:	Mayura Gavhane		
Year	2	Sem	III
CO Number	Course Outcome		
CSC302.1	Solve computational problems using basic constructs like if-else, control structures, array, strings.		
CSC302.2	Apply Object Oriented programming concepts on real world scenarios.		
CSC302.3	Implement relationship between classes such as association, aggregation, interfaces		
CSC302.4	Demonstrate various collection classes, programs on exceptions, multi-threading and applets		
Course Name:	Data Structures		
Course Code	CSC303		
Faculty Name:	Imran Ali Mirza		
Year	2	Sem	III
CO Number	Course Outcome		
CSC303.1	Students will be able to implement various linear and nonlinear data structures.		
CSC303.2	Students will be able to handle operations like insertion, deletion, searching and traversing on various data structures.		
CSC303.3	Students will be able to select appropriate sorting technique for given problem.		
CSC303.4	Students will be able to select appropriate searching technique for given problem.		
CSC303.5	Students will be able to apply the learned concepts in various domains like DBMS and Compiler Construction.		
CSC303.6	Students will be able to choose appropriate data structure for specified problem domain.		
Course Name:	DLDA		
Course Code	CSC304		
Faculty Name:	Deepali Kayande		
Year	2	Sem	III
CO Number	Course Outcome		
CSC304.1	Ability to comprehend the theory and logic behind designing digital electronic circuits.		
CSC304.2	Ability to perform binary, decimal, octal & hexadecimal calculations and conversions.		
CSC304.3	Ability to apply & design combinational circuits and to verify the circuit with respect to the underlying logic.		
CSC304.4	Ability to apply & design synchronous and asynchronous sequential circuits and to verify the circuit with respect to the underlying logic to solve real world problems		
CSC304.5	Ability to construct, test and debug digital networks using VHDL.		
Course Name:	Discrete Structures		
Course Code	CSC305		
Faculty Name:	Priya Kaul		
Year	2	Sem	III
CO Number	Course Outcome		
CSC305.1	Develop analytical and critical thinking abilities by applying concepts of sets, logic and relations in solving mathematical proofs and verification of theorems.		

CSC305.2	Infer the importance of generating functions in construction of recursive algorithms like Quick sort, Binary Search, Fibonacci series.
CSC305.3	Correlate the concepts of discrete structures and their relevance within the context of computer science, in the area of data structures. (tree, graph)
CSC305.4	Demonstrate a working knowledge of fundamental algebraic structures (e.g., groups, rings, and fields).

Course Name:	ECCF		
Course Code	CSC306		
Faculty Name:	Sejal Chopra		
Year	2	Sem	III

CO Number	Course Outcome
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CSC306.1	Ability to understand, describe and explain the basics of semiconductor devices (op-amps and FETs) in an electronic circuit and fundamental concepts for communication.
CSC306.2	Ability to apply the knowledge of circuit working to conduct experiments and to obtain voltages, current or waveforms and relate them at different points in electronic and communication circuits
CSC306.3	Ability to estimate the voltages, current or waveforms for given specifications in electronics and communication circuits
CSC306.4	Ability to justify the need of specific modulation process in an appropriate application by engaging them in self-learning / independent study through submission of a presentation and two page report.

TE Comps			
Course Name:	Microprocessor		
Course Code:	CPC501		
Faculty Name:	Ditty Varghese		
Year	3	Sem	V
CO Number	Course Outcome		
CPC501.1	Ability to identify and describe the various architectures of specific processors.		
CPC501.2	Ability to engage students in learning the programming of microcontroller.		
CPC501.3	Ability to use appropriate instructions to program a microprocessor to perform various tasks.		
CPC501.4	Ability to discuss and contrast architectures,ways of interfacing supporting chips. Also, design system using memory chips and peripheral chips for 16 bit 8086 microprocessor		
CPC501.5	Ability to engage students in self-learning activity/independent activity to give a presentation on "Enhancement in Performance for RISC AND CISC processors."		
Course Name:	Operating System		
Course Code:	CPC502		
Faculty Name:	Amiya Kumar Tripathy		
Year	3	Sem	V
CO Number	Course Outcome		
CPC502.1	Understand different OS Roles and Design		
CPC502.2	Compare and contrast the common algorithms used scheduling of tasks in operating systems		
CPC502.3	Applying the concept of how computing resources (e.g., CPU, Memory, etc.) are managed by the operating system		
CPC502.4	Analyse the trade-offs inherent in operating system design		
CPC502.5	Evaluate the key trade-offs between multiple approaches to operating system design, and identify and report appropriate design choices when solving real-world problems		
Course Name:	SOOAD		
Course Code:	CPC503		
Faculty Name:	Shafaque Syed		
Year	3	Sem	V
CO Number	Course Outcome		
CPC503.1	Understand an information system and system development life-cycle.		
CPC503.2	Understand and apply techniques for system analysis and feasibility analysis		
CPC503.3	Apply key modeling concepts to both traditional and object oriented approach		
CPC503.4	Design and implement a candidate system following a design methodology and architectural strategy		
Course Name:	Computer Networks		
Course Code:	CPC504		
Faculty Name:	Nilakshi Joshi		
Year	3	Sem	V
CO Number	Course Outcome		
CPC504.1	Conceptualize all OSI layers		
CPC504.2	Describe and analyze the hardware,software, components of a network and interrelations.		
CPC504.3	Describe and analyze the hardware,software, components of a network and interrelations.		
CPC504.4	Select and apply appropriate networking tools to build network topologies.		
CPC504.5	Install and configure an open source tool ns2.		
CPC504.6	Understand and communicate technical, ethical, social issues related to computer networking.		
Course Name:	Web Technology Laboratory		
Course Code:	CPL501		
Faculty Name:	Ditty Varghese & Kadambari Deherkar		
Year	3	Sem	V
CO Number	Course Outcome		
CPL501.1	Ability to use necessary techniques required in designing and developing Web Pages.		
CPL501.2	Ability to design web pages using HTML and Cascading Styles sheets. Build dynamic and interactive web pages using		
CPL501.3	Design and Construct web site by applying server side and client side scripting .		
CPL501.4	Prepare simple applications on android platform		
CPL501.5	Demonstrate teamwork , technical communication through verbal and written communication.		
Course Name:	BCE		
Course Code:	CPL502		
Faculty Name:	Mohini		
Year	3	Sem	V
CO Number	Course Outcome		
CPL502.1	Communicate effectively in both oral and written format		
CPL502.2	Manifest entrepreneurial approach and possess the ability for life-long learning		
CPL502.3	Develop leadership qualities and professional etiquette		
CPL502.4	Participate and succeed in campus placements and competitive examinations		
CPL502.5	Judiciously assess the macro/micro scenario and act ethically in any given situation		
CPL502.6	Analyze the needs of the society and evolve engineering solutions for them		

BE Comps			
Course Name:	DSP		
Course Code	CPC701		
Faculty Name:	Sejal Chopra		
Year	4	Sem	VII
CO Number	Course Outcome		
CPC701.1	The students will be able to learn, describe and assimilate information about the basic theory & manipulation of digital signals & systems, Discrete Fourier Transform, Fast Fourier Transform & applications involving Digital Signal processors.		
CPC701.2	The students will be able to discuss & summarize the different types of signal processing algorithms, stability of the system, effects of different parameters on system output and basics of DSP processors.		
CPC701.3	The students will be able to apply the use of the signal processing algorithms in solving sums based on the DSP algorithms and concepts and decide the outcome of a system when system parameters are changed.		
CPC701.4	The students will be able to analyze the system given to them, understand the effect each parameter has on the output of a system and interpret the general pattern of a stable system.		
CPC701.5	The students will be able to design basic DSP systems by implementing them either theoretically or practically in a simulation environment or on a DSP kit.		
Course Name:	CSS		
Course Code	CPC702		
Faculty Name:	Kadambari Deherkar		
Year	4	Sem	VII
CO Number	Course Outcome		
CPC702.1	Ability to explain the principles and practices of cryptographic techniques.		
CPC702.2	Ability to explain and identify a variety of generic security threats and vulnerabilities and identify and analyze particular security problems for given application.		
CPC702.3	Recognize the application of security techniques and technologies and apply them in solving security problems in practical systems.		
CPC702.4	Ability to design system security solution for given situation.		
CPC702.5	Ability to use latest tools and technologies in the field of computer and system security.		
Course Name:	AI		
Course Code	CPC703		
Faculty Name:	Abhishek Vichare		
Year	4	Sem	VII
CO Number	Course Outcome		
CPC703.1	Students will be able to develop a basic understanding of AI building blocks presented in intelligent agents.		
CPC703.2	Students will be able to solve searching problems by applying various search methods.		
CPC703.3	Students will be able to analyze efficiency of AI approaches to knowledge-intensive problem solving.		
CPC703.4	Students will be able to design models involving reasoning, uncertainty and the use of unreliable information.		
CPC703.5	Students will be able to design and develop the AI applications through an Open ended experiment		
CPC703.6	Ability to engage in self study/ independent study and deliver presentation on topics related to course.		
Course Name:	IP		
Course Code	CPE7023		
Faculty Name:	Mayura Gavhane		
Year	4	Sem	VII
CO Number	Course Outcome		
CPE7023.1	Explain fundamental concepts of a digital image processing systems and image enhancement techniques		
CPE7023.2	Design and implement image segmentation and binary image processing techniques using openCV with C/C++.		
CPE7023.3	Develop fast image transform flowgraph and solve image compression and decompression techniques		
CPE7023.4	To analyze image processing issues and techniques and also will be able to apply these techniques to real world problems		
Course Name:	SA		
Course Code	CPE7024		
Faculty Name:	Kalpita Wagaskar		
Year	4	Sem	VII
CO Number	Course Outcome		
CPE7024.1	The students should be able to recognize the architectural concepts in development of large, practical software intensive applications.		
CPE7024.2	The student should identify the various methods, notations, tools, and processes used to produce a software architecture		
CPE7024.3	The student should be able to design the software architecture for a software product and analyze the same		
CPE7024.4	The student should be able to design the process of implementation and deployment of the software architectures		
CPE7024.5	The student should be able to design non-functional properties and domain specific software architectures		
Course Name:	SC		
Course Code	CPE7025		
Faculty Name:	Deepali Kayande		
Year	4	Sem	VII
CO Number	Course Outcome		

CPE7025.1	Ability to understand the difference between learning and programming and explore practical applications of Neural Networks (NN).
CPE7025.2	Ability to analyze the fuzzy logic applications and design inference systems.
CPE7025.3	Ability to design a Neuro-fuzzy network using the knowledge of Neural Network and fuzzy logic .
CPE7025.4	Apply genetic algorithms to combinatorial optimization problems
CPE7025.5	Ability to engage in self study /independent study and submit a report on topics related to course.

Course Name:	Project I		
Course Code	CPP701		
Faculty Name:	Dipti Jadhav		
Year	4	Sem	VII

CO Number	Course Outcome
CPP701.1	To review literature for identifying and formulating project idea.
CPP701.2	Analyze and assess information, methods and results for a real world purpose.
CPP701.3	Design a system, component or process to meet a specified goal.
CPP701.4	To demonstrate and apply project management principles
CPP701.5	To effectively communicate the project idea and results to engineering community and society through oral presentation and technical writing.

Course Name:	NTAL		
Course Code	CPL701		
Faculty Name:	Priya Kaul		
Year	4	Sem	VII

CO Number	Course Outcome
CPL701.1	To demonstrate the use of network-based tools for network analysis
CPL701.2	To analyze and evaluate various techniques for network scanning
CPL701.3	To differentiate various network vulnerabilities and their countermeasures
CPL701.4	To apply appropriate tools to simulate intrusion detection system
CPL701.5	To create a firewall and evaluate various security parameters
CPL701.6	To develop improved communication and collaborative skills in meeting security threats as a team member or team leader