

DON BOSCO INSTITUTE OF TECHNOLOGY, KURLA, MUMBAI

COURSE OUTCOMES

Department of IT, CAY- (Even semester, 2018-19)

Course Name:	Applied Mathematics – IV		
Course Code	Revathy		
Faculty name	ITC401		
Year	2	Sem	IV
CO Number	Course Outcome		
ITC401.1	Students will be able to :-Define prime numbers, composite numbers,Identify discrete and continuous random variables,Factorize a given positive integer as a product of numbers,Identify population, sample (small and large),Define Karl Pearson's correlation coefficient and Spearman's rank correlation coefficient		
ITC401.2	Students will be able to :-Identify primes in any given range of integers, Factorize given numbers into prime factors Obtain Euler's totient function for any positive integers,Obtain the regression coefficients and the correlation coefficient Obtain pdf and cdf of discrete and continuous random variables,Obtain mean and variance and mgf of discrete and continuous random variables		
ITC401.3	Students will be able to Obtain MGF and hence obtain the mean and variance (up to first 4 moments) of a random variable Obtain probabilities using correct interpretation of Binomial distribution, Poisson and normal approximations to binomial distribution and also Binomial approximation to normal distribution		
ITC401.4	Students will be able to :-,Identify quadratic residues, Legendre and Jacobi symbols ,Apply Central Limit Theorem to obtain probabilities Verify if a graph is Eulerian or Hamiltonian,Check if a given set is a group, ring, integral domain or a field		
ITC401.5	Students will be able to :-Apply hypothesis testing for the significance of the difference between two means,Obtain right and left cosets of subgroups of a group,Obtain probabilities and z-values for normal distributions		
ITC401.6	Students will be able to :-Check if a given poset is a lattice and whether it is distributive and complemented,Check if a given structure is a Boolean Algebra		

Course Name:	Computer Networks		
Course Code	ITC402		
Faculty Name:	Nilesh		
Year	2	Sem	IV
CO Number	Course Outcome		
ITC402.1	Describe the functions of each layer in OSI and TCP/IP model.		
ITC402.2	Explain the functions of Application layer and Presentation layer paradigms and Protocols.		
ITC402.3	Describe the Session layer design issues and Transport layer services.		
ITC402.4	Classify the routing protocols and analyze how to assign the IP addresses for the given network.		
ITC402.5	Describe the functions of data link layer and explain the protocols.		
ITC402.6	Explain the types of transmission media with real-time applications.		

Course Name:	Operating system		
Course Code	ITC403		
Faculty Name:	Sushree Satapathy		
Year	2	Sem	IV
CO Number	Course Outcome		
ITC403.1	Describe the important computer system resources and the role of operating system in their management policies and algorithms.		
ITC403.2	Understand the process management policies and scheduling of processes by CPU		
ITC403.3	Evaluate the requirement for process synchronization and coordination handled by operating system		
ITC403.4	Describe and analyze the memory management and its allocation policies.		
ITC403.5	Identify use and evaluate the storage management policies with respect to different storage management technologies.		
ITC403.6	Identify the need to create the special purpose operating system.		

Course Name:	Computer organization & Architecture		
Course Code	ITC404		
Faculty name	Janhavi Baikerikar		
Year	2	Sem	IV

CO Number	Course Outcome
ITC404.1	Describe basic organization of computer and the architecture of 8086 microprocessor.
ITC404.2	Implement assembly language program for given task for 8086 microprocessor.
ITC404.3	Demonstrate control unit operations and conceptualize instruction level parallelism.
ITC404.4	Demonstrate and perform computer arithmetic operations on integer and real numbers.
ITC404.5	Categorize memory organization and explain the function of each element of a memory Hierarchy.
ITC404.6	Identify and compare different methods for computer I/O mechanisms.

Course Name:	Automata Theory		
Course Code	ITC405		
Faculty Name:	Uday Nayak		
Year	2	Sem	IV

CO Number	Course Outcome
ITC405.1	Student will be able to compare different types of languages and machines
ITC405.2	Student will be able to demonstrate Power and Limitations of theoretical models of Computation.
ITC405.3	Student will be able to design different types of machines as per the constraints of language.
ITC405.4	Student will be able to demonstrate the use of pumping lemma and closure properties to prove that some problems cannot be solved by particular machines.
ITC405.5	Students will be able to evaluate given problem statement is decidable or not.

Course Name:	Networking lab		
Course Code	ITL401		
Faculty Name:	Nilesh		
Year	2	Sem	IV

CO Number	Course Outcome
ITL401.1	Execute and evaluate network administration commands and demonstrate their use in different network scenarios
ITL401.2	Demonstrate the installation and configuration of network simulator.
ITL401.3	Demonstrate and measure different network scenarios and their performance behavior.
ITL401.4	Analyze the contents the packet contents of different protocols.
ITL401.5	Implement the socket programming for client server architecture.
ITL401.6	Design and setup a organization network using packet tracer.

Course Name:	Unix Lab		
Course Code	ITL402		
Faculty Name:	Sushree Satapathy		
Year	2	Sem	IV

CO Number	Course Outcome
ITL402.1	Identify the basic Unix general purpose commands .
ITL402.2	Apply and change the ownership and file permissions using advance Unix commands.
ITL402.3	Use the awk, grep, perl scripts.
ITL402.4	Implement shell scripts and sed.
ITL402.5	Apply basic of administrative task.
ITL402.6	Apply networking Unix commands.

Course Name:	Microprocessor programming Lab		
Course Code	ITL403		
Faculty Name:	Janhavi Baikerikar		
Year	2	Sem	IV
CO Number	Course Outcome		
ITL403.1	Apply the fundamentals of assembly level programming of microprocessors.		
ITL403.2	Build a program on a microprocessor using arithmetic & logical instruction set of 8086.		
ITL403.3	Develop the assembly level programming using 8086 loop instruction set.		
ITL403.4	Write programs based on string and procedure for 8086 microprocessor.		
ITL403.5	Analyze abstract problems and apply a combination of hardware and software to address the Problem		
ITL403.6	Make use of standard test and measurement equipment to evaluate digital interfaces.		

Course Name:	Python Lab		
Course Code	ITL404		
Faculty Name:	Shivsevak Negi		
Year	2	Sem	IV
CO Number	Course Outcome		
ITL404.1	Able to describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python		
ITL404.2	Express and apply different Decision Making statements, looping statements and concept of user defined methods.		
ITL404.3	Interpret and implement Object oriented programming in Python		
ITL404.4	Implement different File handling operations		
ITL404.5	Able to design GUI for the given Applications, setup and evaluate database connection to perform database operations		
ITL404.6	Design and develop Client Server network applications using Python		

Course Name:	Software Engineering with Project Management		
Course Code	ITC601		
Faculty name	Vijaya Bharathi		
Year	3	Sem	VI
CO Number	Course Outcome		
ITC601.1	Students will be able to define various software application domains and remember different process models used in software development.		
ITC601.2	Students will be able to classify different types of software requirements and their gathering techniques.		
ITC601.3	Students will be able to convert the requirements model into the design model		
ITC601.4	Students will be able to distinguish among SCM and SQA and classify different testing strategies and tactics and compare them.		
ITC601.5	Students will be able to justify the role of SDLC in Software Project Development and they can evaluate the importance of Software Engineering in PLC.		
ITC601.6	Students will be able to generate project schedule and can construct, design and develop network diagrams for different types of Projects.		

Course Name:	Data Mining & Business Intelligence		
Course Code	ITC602		
Faculty name	Aruna Khubalkar		
Year	3	Sem	VI
ITC602.1	Demonstrate an understanding of the importance of data mining and the principles of business intelligence		
ITC602.2	Organize and Prepare the data needed for data mining using preprocessing techniques		
ITC602.3	Perform exploratory analysis of the data to be used for mining.		
ITC602.4	Implement the appropriate data mining methods like classification, clustering or Frequent Pattern mining on large data sets.		
ITC602.5	Define and apply metrics to measure the performance of various data mining algorithms.		
ITC602.6	Apply BI to solve practical problems: Analyze the problem domain, use the data collected in enterprise, apply the appropriate data mining technique, interpret and visualize the results and provide decision support.		

Course Name:	Cloud Computing Service		
Course Code	ITC603		
Faculty name	Sunantha Krishnan		
Year	3	Sem	VI
CO Number	Course Outcome		
ITC603.1	Define cloud computing & memorize the different cloud service & deployment models		
ITC603.2	Describe the importance of virtualization along with their technologies		
ITC603.3	Use and Examine different cloud computing service		
ITC603.4	Analyze the component of open stack & Google Cloud platform & understand Mobile Cloud Computing		
ITC603.5	Describe the key component of Amazon Web Service		
ITC603.6	Design & Develop back up strategies for cloud data based on features .		
Course Name:	Wireless Network		
Course Code	ITC604		
Faculty name	Tayyabali		
Year	3	Sem	VI
CO Number	Course Outcome		
ITC604.1	Explain the basic concepts of wireless network and wireless generations.		
ITC604.2	Demonstrate the different wireless technologies such as CDMA, GSM, GPRS etc		
ITC604.3	Appraise the importance of Ad-hoc networks such as MANET and VANET and Wireless Sensor networks		
ITC604.4	Describe and judge the emerging wireless technologies standards such as WLL,WLAN, WPAN, WMAN.		
ITC604.5	Explain the design considerations for deploying the wireless network infrastructure.		
ITC604.6	Differentiate and support the security measures, standards. Services and layer wise security considerations.		
Course Name:	Green IT		
Course Code	ITDLO-II-6022		
Faculty name	Prasad Padalkar		
Year	3	Sem	VI
CO Number	Course Outcome		
ITDLO-11-6025.1	Describe awareness among stakeholders and promote green agenda and green initiatives in their working environments leading to green movement		
ITDLO-11-6025.2	Identify IT Infrastructure Management and Green Data Centre Metrics for software development		
ITDLO-11-6025.3	Recognize Objectives of Green Network Protocols for Data communication.		
ITDLO-11-6025.4	Use Green IT Strategies and metrics for ICT development.		
ITDLO-11-6025.5	Illustrate various green IT services and its roles.		
ITDLO-11-6025.6	Use new career opportunities available in IT profession, audits and others with special skills such as energy efficiency, ethical IT assets disposal, carbon footprint estimation, reporting and development of green products, applications and services.		
Course Name:	Software Architecture		
Course Code	ITDLO-II – 6025		
Faculty name	Janhavi Baikerikar		
Year	3	Sem	VI
CO Number	Course Outcome		
ITDLO-11-6022.1	Students will cite knowledge of various approaches to document a software system		
ITDLO-11-6022.2	Students will be able to describe functional and non-functional requirements		
ITDLO-11-6022.3	Students will be able to use proper architecture for software		
ITDLO-11-6022.4	Students will be able to categorize different components used in the software system		
ITDLO-11-6022.5	Students will be able to choose from different architectural styles		
ITDLO-11-6022.6	Students will be able to improve quality of software by selecting proper architecture		

Course Name:	Software Design Lab		
Course Code	ITL601		
Faculty name	Vijaya Bharathi		
Year	3	Sem	VI
CO Number	Course Outcome		
ITL601.1	Students will be able to sketch a Modeling with UML.		
ITL601.2	Students will be able to deploy Structural Modeling.		
ITL601.3	Students will be able to deploy Behavioral modeling.		
ITL601.4	Students will be able to deploy Architectural modeling.		
ITL601.5	Students will be able to do estimation about schedule and cost for project development.		
ITL601.6	Students will be able to select project development tool.		
Course Name:	Business Intelligence Lab		
Course Code	ITL602		
Faculty name	Aruna Khubalkar		
Year	3	Sem	VI
CO Number	Course Outcome		
ITL602.1	Identify sources of Data for mining and perform data exploration		
ITL602.2	Organize and prepare the data needed for data mining algorithms in terms of attributes and class inputs, training, validating, and testing files.		
ITL602.3	Implement the appropriate data mining methods like classification, clustering or association mining on large data sets using open source tools like WEKA		
ITL602.4	Implement various data mining algorithms from scratch using languages like Python/ Java etc.		
ITL602.5	Evaluate and compare performance of some available BI packages		
ITL602.6	Apply BI to solve practical problems : Analyze the problem domain, use the data collected in enterprise apply the appropriate data mining technique, interpret and visualize the results and provide decision support.		
Course Name:	Cloud Service Design Lab		
Course Code	ITL603		
Faculty name	Nilesh & Vaishali		
Year	3	Sem	VI
CO Number	Course Outcome		
ITL603.1	Students will be able to understand and implement Virtualization using different types of Hypervisors		
ITL603.2	Students will be able to demonstrate on demand Application delivery over the web		
ITL603.3	Students will be able to install and configure Open source cloud environment		
ITL603.4	Students will be able to Analyze and understand the functioning of different components involved in Amazon web services cloud platform.		
ITL603.5	Student will be able to demonstrate Platform as a Service using Googleapp Engine		
ITL603.6	Student will be able to Design & Synthesize Storage as a service using own Cloud		
Course Name:	Sensor Network Lab		
Course Code	ITCL604		
Faculty name	Tayyabali		
Year	3	Sem	VI
CO Number	Course Outcome		
ITL604.1	Identify the requirements for the real world problems.		
ITL604.2	Conduct a survey of several available literatures in the preferred field of study.		
ITL604.3	Study and enhance software/ hardware skills.		
ITL604.4	Demonstrate and build the project successfully by hardware/sensor requirements, coding,emulating and testing.		
ITL604.5	To report and present the findings of the study conducted in the preferred domain		
ITL604.6	Demonstrate an ability to work in teams and manage the conduct of the research study.		

Course Name:	Mini Project		
Course Code	ITM605		
Faculty name	Aruna Khubalkar		
Year	3	Sem	VI
CO Number	Course Outcome		
ITM605.1	Discover potential research areas in the field of IT		
ITM605.2	Conduct a survey of several available literature in the preferred field of study		
ITM605.3	Compare and contrast the several existing solutions for research challenge		
ITM605.4	Demonstrate an ability to work in teams and manage the conduct of the research study.		
ITM605.5	Formulate and propose a plan for creating a solution for the research plan identified		
ITM605.6	To report and present the findings of the study conducted in the preferred domain		
Course Name:	Storage Network Managment & retrieval		
Course Code	BEITC801		
Faculty name	Anagha S.		
Year	4	Sem	VIII
CO Number	Course Outcome		
BEITC801.1	Students will be able to compare various storage architecture like DAS, NAS, SAN, iSCSI, IP-SAN.		
BEITC801.2	Students will be able to decide storage virtualization, type of backup and BCP required for application.		
BEITC801.3	Students will be able to choose information retrieval system as per different applications in storage networks.		
BEITC801.4	Students will be able to implement/ simulate storage technologies like RAID, NAS, SAN etc.		
BEITC801.5	Students will be able to evaluate storage architectures used in different senarios using case studies.		
Course Name:	Big Data Analytics		
Course Code	BEIT802		
Faculty name	Sunantha Krishnan		
Year	4	Sem	VIII
CO Number	Course Outcome		
BEITC802.1	Identify the key issues in big data management		
BEITC802.2	Identifying the associated applications in intelligent business and scientific computing		
BEITC802.3	Solve fundamental enabling Techniques and scalable algorithms like Hadoop, MapReduce & NoSql in big data analytics.		
BEITC802.4	Analyze business models & scientific computing paradigms for business models & scientific computing paradigms.		
BEITC802.5	Interpret business models & scientific computing paradigms		
BEITC802.6	Formulate adequate perspective of big data and analytics in various applications like recommender system, social media application etc		
Course Name:	Computer Simulation & Modelling		
Course Code	BEITC803		
Faculty name	Prasad Padalkar		
Year	4	Sem	VIII
CO Number	Course Outcome		
BEITC803.1	Understand the meaning of simulation and its importance in business, science, engineering, industry and services & applications		
BEITC803.2	Ability to analyze events and inter-arrival time, arrival process, queuing strategies, resources and disposal of entities		
BEITC803.3	An ability to perform a simulation using spreadsheets		
BEITC803.4	Ability to generate pseudo-random numbers using the Linear Congruential Method & to perform statistical tests to measure the quality of a pseudo-random number generator		
BEITC803.5	Ability to define random variate generators for finite random variables		
BEITC803.6	Ability to analyze and fit the collected data to different distributions		
Course Name:	Enterprise Resource Managment		
Course Code	BEITC8041		
Faculty name	Vaishali K		

Year	4	Sem	VIII
CO Number	Course Outcome		
BEITC804.1	Students will be able to visualize the basic structure of ERP & technologies related to ERP		
BEITC804.2	Students will be able to analyze the business process and implementation strategy of ERP		
BEITC804.3	Students will be able to gain knowledge on ERP tools and its benefits		
BEITC804.4	Students will be able to simulate lifecycle of ERP using modern tool		
BEITC804.5	Students will be able to develop Ecommerce functionalities like E-procurement, shopping cart and customer management		
BEITC804.6	Students will be able to apply design principle for creating web portal constituting modules of ERP		

Course Name:	Soft Computing		
Course Code	BEITC8045		
Faculty name	Uday Nayak		
Year	4	Sem	VIII

CO Number	Course Outcome		
BEITC8045.1	Ability to elaborate the importance of optimizations and its use in computer engineering fields and other domains		
BEITC8045.2	Students would understand inference systems and understand the efficiency of a hybrid system and Fuzzy Logic		
BEITC8045.3	Ability to analyze the difference between various learning algorithms of Neural Networks.		
BEITC8045.4	Ability to program and to explore practical applications of Neural Networks.		
BEITC8045.5	Apply genetic algorithms to combinatorial optimization problems.		
BEITC8045.6	Ability to hybridize Neural Networks and fuzzy logic to form a Neuro-fuzzy network.		

Course Name:	Storage Network Management & retrieval		
Course Code	BEITL801		
Faculty name	Anagha S.		
Year	4	Sem	VIII

CO Number	Course Outcome		
BEITL801.1	Students will be able to implement/ simulate storage technologies like RAID, NAS, SAN etc.		
BEITL801.2	Students will be able to evaluate storage architectures used in different scenarios using case studies.		

Course Name:	Big Data Analytics		
Course Code	BEITL802		
Faculty name	Sunantha Krishnan		
Year	4	Sem	VIII

CO Number	Course Outcome		
BEITL802.1	Identify the key issues in big data management		
BEITL802.2	Identifying the associated applications in intelligent business and scientific computing		
BEITL802.3	Solve fundamental enabling Techniques and scalable algorithms like Hadoop, MapReduce & NoSql in big data analytics.		

Course Name:	Computer Simulation & Modelling		
Course Code	BEITL803		
Faculty name	Prasad Padalkar		
Year	4	Sem	VIII

CO Number	Course Outcome		
BEITL803.1	Understand the meaning of simulation and its importance in business, science, engineering, industry and services & applications		
BEITL803.2	Ability to analyze events and inter-arrival time, arrival process, queuing strategies, resources and disposal of entities		
BEITL803.3	An ability to perform a simulation using spreadsheets		
BEITL803.4	Ability to generate pseudo-random numbers using the Linear Congruential Method & to perform statistical tests to measure the quality of a pseudo-random number generator		
BEITL803.5	Ability to define random variate generators for finite random variables		
BEITL803.6	Ability to analyze and fit the collected data to different distributions		

Course Name:	Enterprise Resource Managment		
Course Code	BEITL804		
Faculty name	Vaishali K		
Year	4	Sem	VIII
CO Number	Course Outcome		
BEITL804.1	Studnets will be able to visulaize the basic structure of ERP & technologies related to ERP		
BEITL804.2	students will be able to anlyze the business process and implmentation tstaergy of ERP		
BEITL804.3	Students will be able to gain knowlwdge on ERP tools and its benefits		
BEITL804.4	Studnets will be able to simulate lifecycle of ERP using modern tool		
BEITL804.5	Students will be able to develope Ecommerce fuctionalities like E-procument, shopping cart and customer management		
BEITL804.6	studnets will be able to apply desing principle for creating web portal consitituting modules of ERP		
Course Name:	Elective II- Soft Computing		
Course Code	BEITL804		
Faculty name			
Year	4	Sem	VIII
CO Number	Course Outcome		
BEITL8045.1	Ability to elaborate the importance of optimizations and its use in computer engineering fields and other domains		
BEITL8045.2	Students would understand inference systems and understand the efficiency of a hybrid system and Fuzzy Logic		
BEITL8045.3	Ability to analyse the difference between various learning algorithms of Neural Networks.		
BEITL8045.4	Ability to program and to explore practical applications of Neural Networks.		
BEITL8045.5	Apply genetic algorithms to combinatorial optimization problems.		
BEITL8045.6	Ability to hybridize Neural Networks and fuzzy logic to form a Neuro-fuzzy network.		
Course Name:	Project II		
Course Code	BEITP805		
Faculty name	Sunantha Krishnan		
Year	4	Sem	VIII
CO Number	Course Outcome		
BEITP805.1	Demonstrate the product that is implemented.		
BEITP805.2	Produce the proper documentation of the work.		
BEITP805.3	Able to work in team and communicate with peers.		
BEITP805.4	Develop skills required by the industry		