



Mahavir Education Trust's
Shah & Anchor Kutchhi Engineering College,
 Chembur, Mumbai 400 088
UG Program in Information Technology

Academic Year 2019-20
Semester - IV

Unique Course Number: ITC401		Course: Applied Mathematics-IV
1.ITC401.1	Apply the Number Theory to different applications using theorem	
1.ITC401.2	Apply Probability and understand PDF	
1.ITC401.3	Understand sampling theory and correlation	
1.ITC401.4	Apply the graphs and trees concepts to different applications	
1.ITC401.5	Understand group theory	
1.ITC401.6	Understand Lattice theory	
Unique Course Number: ITC405		Course: Automata Theory
2.ITC405.1	Understand, design, construct, analyze and interpret Regular languages, Expression and Grammars.	
2.ITC405.2	Understand and design different types of finite automata and machine as acceptor, verifier and translator.	
2.ITC405.3	Understand, design, analyze and interpret Context free language, expression and grammars	
2.ITC405.4	Design different types of Push down Automata.	
2.ITC405.5	Understand the concepts and design different types of Turing Machines as Acceptor, Verifier, and Translator.	
2.ITC405.6	Compare, understand and analyze different languages, grammars, Automata and Machines and appreciate their power and convert Automata to Programs and Functions.	
Unique Course Number: ITC402		Course: Computer Network
5.ITC402.1	Describe the functions of each layer in OSI and TCP/IP model.	
5.ITC402.2	Explain the functions of Application layer and Presentation layer paradigms and Protocols.	
5.ITC402.3	Describe the Session layer design issues and Transport layer services.	
5.ITC402.4	Classify the routing protocols and analyze how to assign the IP addresses for the given network	
5.ITC402.5	Describe the functions of data link layer and explain the protocols	
5.ITC402.6	Explain the types of transmission media with real time applications	
Unique Course Number: ITL401		Course: Networking Lab
5.ITL401.1	Execute and evaluate network administration commands and demonstrate their use in different network scenarios.	
5.ITL401.2	Demonstrate the installation and configuration of network simulator.	
5.ITL401.3	Demonstrate and measure different network scenarios and their performance behaviour.	
5.ITL401.4	Analyze the contents of packet contents of different protocols.	
5.ITL401.5	Implement the socket programming for client server architecture.	
5.ITL401.6	Design and setup a organization network using packet tracer.	
Unique Course Number: ITC404		Course: Computer Organization and Architecture
8.ITC 404.1	Describe basics organization of computer and the architecture of 8086 microprocessor.	
8.ITC 404.2	Implement assembly language program for given task for 8086 microprocessor.	
8.ITC 404.3	Demonstrate control unit operation and conceptualize instruction level parallelism.	
8.ITC 404.4	Demonstrate and perform computer arithmetic operation on integer and real numbers.	
8.ITC 404.5	Categorize memory organization and explain the function of each element of a memory hierarchy.	
8.ITC 404.6	Identify and compare different methods for computer I/O mechanisms.	
Unique Course Number: ITL403		Course: Microprocessor Programming Lab
8.ITL403.1	Learn assembling and disassembling of PC.	



Mahavir Education Trust's
Shah & Anchor Kutchhi Engineering College,
 Chembur, Mumbai 400 088
UG Program in Information Technology

8.ITL403.2	Write Assembly Language Programs using Arithmetical and Logical Instruction set of 8086.
8.ITL403.3	Develop the assembly level programming using 8086 loop instruction set.
8.ITL403.4	Write programs based on string and procedure for 8086 Microprocessor.
8.ITL403.5	Learn Interfacing of 8086 Microprocessor.
8.ITL403.6	Build and Debug programs in TASM/MASM.
Unique Course Number: ITC403 Course: Operating System	
8.ITC403.1	Describe the important computer system resources and the role of operating system in their management policies and algorithms.
8.ITC403.2	Understand the process management policies and scheduling of processes by CPU.
8.ITC403.3	Evaluate the requirement for process synchronization and coordination handled by operating system
8.ITC403.4	Describe and analyze the memory management and its allocation policies.
8.ITC403.5	Identify use and evaluate the storage management policies with respect to different storage management technologies.
8.ITC403.6	Identify the need to create the special purpose operating system.
Unique Course Number: ITL402 Course: Unix Lab	
8.ITL402.1	Install Unix & Identify basic unix general purpose commands
8.ITL402.2	Apply & change the ownership & file permission using advance unix commands.
8.ITL402.3	Use the awk,grep,perl scripts
8.ITL402.4	Implement shell scripts & sed
8.ITL402.5	Apply basic of administrative task
8.ITL402.6	Apply networking Unix commands
Unique Course Number: ITL404 Course:Python Lab	
2.ITL404.1	Describe the Numbers, Math Functions, Strings, List, Tuples, Set and Dictionaries in Python.
2.ITL404.2	Write all kinds of decision making statements and functions.
2.ITL404.3	Interpret Object Oriented Programming in Python.
2.ITL404.4	Apply different file handling operations.
2.ITL404.5	Design GUI applications in Python and evaluate various database operations.
2.ITL404.6	Develop Client Server network applications using Python.