

REGULATION: 2017

S.NO	COURSE NAME	COURSE OUT COMES	
1	C101 -Communicative English	C101.1	Enable the development in sharing information about family and friends.
		C101.2	Strengthen general comprehending skills and present lucid skills in free writing
		C101.3	Understand the basic grammar techniques and utilize it in enhancing language development.
		C101.4	Foster an environment for reading and develop good language skills
		C101.5	Develop flair for any kind of writing with rich vocabulary and proper syntax
2	C102 - Engineering Mathematics – I	C102.1	Diagonalize symmetric matrices and similar matrices using Eigen values and Eigen vectors.
		C102.2	Explain gradients, potential functions, and directional derivatives of functions of several variables.
		C102.3	Compute line, surface and volume integral using Gauss divergence, Green's and stoke's theorem.
		C102.4	Discuss analytic functions in heat and fluid flow
		C102.5	Extend the concept of contour integrals in evaluating Real integrals and Discuss Laplace Transform methods to solve initial value problems for constant coefficient linear ODEs.
3	C103 - Engineering Physics	C103.1	Discuss the Young's modulus and Rigidity modulus of elasticity of materials and its determination through experimental methods
		C103.2	Describe the characteristics of laser light and their application in semiconductor laser.
		C103.3	Discuss the principle behind the propagation of light through an optical fiber and its application in sensors
		C103.4	Summarize the different modes of heat transfer.
		C103.5	Relate the quantum concepts in electron microscopes and Describe the unit cell characteristics and the growth of crystals.
4	Engineering Chemistry	C104.1	Summarize the water related problems in boilers and their treatment techniques.
		C104.2	Discuss the applications of adsorption in the field of water and air pollution abatement.
		C104.3	Discuss the types of catalysis and the mechanism of enzyme catalysis

S.NO	COURSE NAME	COURSE OUT COMES	
4	C104 - Engineering	C104.4	Associate phase rule in the alloying and the behavior of one component and two component systems using phase diagram
		C104.5	Explain various types of fuels, their manufacturing processes and calculation of calorific theoretically and Summarize the principles and generation of energy in batteries ,nuclear reactors, solar cells, wind mills and fuel cells
5	C105 - Problem Solving & Python Programming	C105.1	Develop algorithmic solutions to simple computational problems
		C105.2	Design a structure for a simple Python programs for solving problems.
		C105.3	Analyze and decompose a python programs into functions
		C105.4	Represent compound data using Python lists, Tuples, Dictionaries.
		C105.5	Design Command line file programs and apply exception handling mechanisms
6	C106 - Engineering Graphics	C106.1	Discuss about conics and orthographic views of engineering components
		C106.2	Draw the projection of points, lines and planes
		C106.3	Classify solids and projection of solids at different positions
		C106.4	Show sectioned view of solids and development of surface
		C106.5	Draw isometric projection and perspective views of an object/solid and Apply the concept of drawing in practical applications.
7	C107 - Problem Solving and Python Programming Laboratory	C107.1	Develop solutions to simple computational problems using Python programs
		C107.2	Solve problems using conditionals and loops in Python.
		C107.3	Develop Python programs by defining functions and calling them.
		C107.4	Use Python lists, tuples & dictionaries for representing compound data.
		C107.5	Develop Python programs using files.
8	Engineering Physics & Chemistry Lab	C108.1	Analyze the various modulus of elasticity of different types of materials.
		C108.2	Able to find the velocity of ultrasonic waves in different liquid.
		C108.3	Understand the various parameter affecting the thermal conductivity of poor conductor
		C108.4	Understand the concept of Laser and its diffraction for different usage
		C108.5	Analyze the acceptance angle and numerical aperture of optical fibers.

S.NO	COURSE NAME	COURSE OUT COMES	
	C108 - English	C108.6	Understand the method of determine the strength of a pure acid and mixture of acids by using conductivity meter.
		C108.7	Understand the method of estimate the amount of iron content present in a given solution by means of potentiometric titration.
9	C109 - Technical English	C109.1	Read technical texts and write area specific texts effortlessly
		C109.2	Write formal letters / emails using vocabulary.
		C109.3	Speak appropriately and effectively in varies formal and informal contexts.
		C109.4	Prepare reports and winning job applications.
		C109.5	Listen and comprehend lectures in the area of specialization successfully.
10	C110 - Engineering Mathematics - II	C110.1	Understand the Concepts of Diagonalization of matrices.
		C110.2	Understand the concepts of Vector Calculus and their applications.
		C110.3	Interpret the Concepts of analytic functions and Conformal mapping.
		C110.4	Understand the integration concepts on Complex integration
		C110.5	Demonstrate the concepts of Laplace transformations and their applications
11	C111 - Physics Information for Science	C111.1	Gain knowledge on classical and Quantum electron theories and energy band structure
		C111.2	Acquire knowledge on basics semiconductor physics and its application in various devices
		C111.3	Get knowledge magnetic properties of material and their application in data storage
		C111.4	Have the necessary understanding on the functioning of optical materials for optoelectronics
		C111.5	Understand the basics of quantum structure and their application in carbon electronics
12	C112 - Basic Electrical, Electronics and Measurement Engineering	C112.1	Discuss the essentials of electric circuit analysis
		C112.2	Discuss the basic operation of electric machines and
		C112.3	Introduction of renewable Sources and Common Domestic Loads
		C112.4	Introduction to measurements and metering for electric circuit
	Science	C113.1	Understand the types, characteristics of Ecosystem & Biodiversity.

S.NO	COURSE NAME	COURSE OUT COMES	
13	C113 - Environmental Sc & Engg	C113.2	Understand the types of pollution & its causes.
		C113.3	Understand the importance of Natural Resources.
		C113.4	Understand the Environmental problems.
		C113.5	Explain the importance of women, child education and HIV /AIDS.
14	C114 - Programming in C	C114.1	Develop simple applications in C using basic constructs
		C114.2	Design and implement applications using arrays and strings
		C114.3	Apply C functions and pointers in writing C programs.
		C114.4	Develop applications in C using structures.
		C114.5	Design applications using sequential and random access file processing.
15	C115 - Engineering Practices Laboratory	C115.1	Apply the knowledge of pipeline connections to household fittings and industrial buildings.
		C115.2	Prepare the different joints in roofs, doors, windows and furniture.
		C115.3	Perform step turning operation in a lathe.
		C115.4	Perform the various welding processes and know about its applications.
		C115.5	Produce a funnel using sheet metal.
16	C116 - C Programming Laboratory	C116.1	Develop C program for simple applications making use of basic construct, array and string
		C116.2	Develop c program involving function, recursion, pointers and structures
		C116.3	Design application using sequential and random access file processing
17	C201 -Discrete Mathematics (MA8351)	C201.1	Understand and simplify basic logic statements ,predicates and proofing methodology.
		C201.2	Apply basic counting techniques to solve permutation and combinatorial problems.
		C201.3	Apply graph theory in data structures and real world problems.
		C201.4	Demonstrate the concepts and properties of algebraic structures such as groups, rings and fields.
		C201.5	Understand the basic concepts of Posets, Lattices and Boolean algebra

S.NO	COURSE NAME	COURSE OUT COMES	
18	C202 - Digital Principles And System Design (CS8351)	C202.1	Simply Boolean functions using K-Map
		C202.2	Analyse, design & write HDL code for combinational circuit.
		C202.3	Analyse, design & write HDL code for sequential circuit.
		C202.4	Apply the concept of asynchronous sequential circuits.
		C202.5	Implement design using programmable logic devices.
19	C203 - Data Structures (CS8391)	C203.1	Implement abstract data types for linear data structures using List.
		C203.2	Implement abstract data types for linear data structures using Stack and Queue.
		C203.3	Represent and manipulate data using nonlinear data structures using trees to design algorithms for various applications
		C203.4	Illustrate the non – linear data structures using graph and its types
		C203.5	Illustrate and compare various techniques for searching and sorting.
20	C204 - Object Oriented Programming (CS8392 )	C204.1	Understanding of OOP concepts and basics of Java programming.
		C204.2	Implement Object oriented constructs such as various class hierarchies, interfaces and exception handling
		C204.3	Explain the features of exception handling and input/output basics in Java.
		C204.4	Understand the concepts of threads and I/O in Java
		C204.5	Understand various components of Java AWT and Swing and Build applications that include GUIs and event driven programming.
21	C205 - Communication Engineering (EC8395)	C205.1	Illustrate analog modulation techniques and its generation
		C205.2	Explain Pulse Modulation types and Multiplexing techniques
		C205.3	Illustrate digital modulation and transmission techniques
		C205.4	Analyze Source, Error control and convolution coding
		C205.5	Explain the importance of Spread Spectrum and Multiple Access Techniques for communication
	ures Laboratory 81)	C206.1	Explain appropriate data structures as applied to specified problem definition.
		C206.2	Applying queries like searching, insertion, and deletion, traversing mechanism etc. on various data structures.

S.NO	COURSE NAME	COURSE OUT COMES	
22	C206 - Data Struct (CS83)	C206.3	Choose appropriate sorting/searching technique for given problem.
		C206.4	Design advance data structure using Non- Linear data structure.
		C206.5	Outline design by applying appropriate design pattern
23	C207 - Object Oriented Programming Laboratory (CS8383 )	C207.1	Understand and apply the concepts of classes, Packages, interface & Inheritance
		C207.2	Develop java program for practicing exception handling of files.
		C207.3	Develop application using generic programming & event handling
		C207.4	Develop java program for practicing threads and IO.
		C207.5	Develop a java program for real world application.
24	C208 - Digital Systems Laboratory (CS8382 )	C208.1	Apply Boolean simplification techniques to design a combinational circuit.
		C208.2	Design and Implement combinational and sequential circuits.
		C208.3	Analyze the operation of comparator, shift registers and counters.
		C208.4	Simulate and implement combinational and sequential circuits using VHDL systems.
		C208.5	Design and Implement a simple digital system.
25	C209 - Interpersonal Skills/Listening & Speaking (HS8381 )	C209.1	Listen and respond appropriately
		C209.2	Communicate with appropriate communicative strategies.
		C209.3	Decode what they listen or read.
		C209.4	Participate in group discussion
		C209.5	Make effective presentations
26	C210 - Probability and Statistics (MA8402)	C210.1	Understand the fundamental knowledge of the Probability and distributions.
		C210.2	Understand the basic concepts of one and two dimensional random Variables.
		C210.3	Apply the concept of testing of hypothesis for small and large samples in real life problems.
		C210.4	Apply the basic concepts of classifications of design of experiments in the field of agriculture and statistical quality control.
		C210.5	Apply the concepts of control charts to control the manufacturing Products.

S.NO	COURSE NAME	COURSE OUT COMES	
27	C211 - Computer Architecture (CS8491 )	C211.1	Explain the computer organization components, instructions and addressing modes
		C211.2	Demonstrate arithmetic operations
		C211.3	Interpret the basic of MIPS implementation and pipelining
		C211.4	Outline the concept of parallelism and multi-core processor
		C211.5	Classify the memory technologies and I/O systems
28	C212 - Database Management Systems (CS8492)	C212.1	Explain about a sound introduction to the discipline of database management Systems.
		C212.2	Learn a good formal foundation on the relational model of data and usage of Relational Algebra.
		C212.3	Illustrate the concepts of basic SQL as a universal Database language.
		C212.4	Build a knowledge to advanced SQL topics like embedded SQL, Procedures connectivity through JDBC.
		C212.5	Demonstrate the principles behind systematic database design approaches by covering conceptual design, logical design through normalization.
29	C213 - Design and Analysis of Algorithms (CS8451)	C213.1	Interpret the fundamental needs of algorithms in problem solving.
		C213.2	Classify the Brute force and divide-and-conquer design techniques for problem solving
		C213.3	Develop algorithms for various computing problems
		C213.4	Analyze the iterative improvement methods.
		C213.5	Identify the limitations of algorithms in problem solving.
30	C214 - Operating Systems (CS8493)	C214.1	Gain knowledge about basic concepts and functions of operating system.
		C214.2	Implement various kinds of scheduling algorithms and deadlock and avoidance algorithm.
		C214.3	Summarize and compare various storage management schemes
		C214.4	Develop different file systems and I/O systems.
		C214.5	Analyze and characterize IOS and Android operating system.
31	Software Engineering (CS8494 )	C215.1	Identify the key activities in managing a software project and Compare different process models
		C215.2	Concepts of requirements engineering and Analysis Modeling.

S.NO	COURSE NAME	COURSE OUT COMES	
31	C215 - Software Engineering	C215.3	Apply systematic procedure for software design and deployment
		C215.4	Compare and contrast the various testing and maintenance.
		C215.5	Manage project schedule, estimate project cost and effort required.
32	C216 - Database Management Systems Laboratory (CS8481)	C216.1	understand data definitions and data manipulation commands
		C216.2	learn the use of nested and join queries
		C216.3	understand functions, procedures and procedural extensions of data bases
		C216.4	Familiar with the use of a front end tool
		C216.5	understand design and implementation of typical database applications
33	C217 - Operating Systems Laboratory (CS8461)	C217.1	learn Unix commands and shell programming
		C217.2	implement various CPU Scheduling Algorithms
		C217.3	implement Process Creation and Inter Process Communication
		C217.4	implement Deadlock Avoidance and Deadlock Detection Algorithms
		C217.5	implement Page Replacement Algorithms, File Organization and File Allocation Strategies
34	C218 - Advanced Reading And Writing (HS8461)	C218.1	Read and evaluate texts critically.
		C218.2	Develop paragraph with reasons and examples
		C218.3	Write different types of essays.
		C218.4	Create job applications and resume.
		C218.5	Display critical thinking in various professional contexts.
35	C301 - Algebra And Number Theory (MA8551)	C301.1	Apply the concepts of groups and rings in related problem solving.
		C301.2	Apply the polynomial equations for real time problems.
		C301.3	Demonstrate the number theory and its applications.
		C301.4	Apply linear equations to solve non trivial problems.
		C301.5	Demonstrate the classical theorems in different applications.



S.NO	COURSE NAME	COURSE OUT COMES	
36	C302 - Computer Networks (CS8591)	C302.1	Understand the basic layers and its functions in computer networks & evaluate the performance.
		C302.2	Analyze the performance of network
		C302.3	Realize the various components required to build different networks
		C302.4	Demonstrate the functions of network layer and the various routing protocols
		C302.5	Apply the working of various application layer protocols
37	C303 - Microprocessors And Microcontrollers (EC8691)	C303.1	Understand the programs based on 8086 microprocessor.
		C303.2	Design Memory Interfacing circuits.
		C303.3	Design and interface I/O circuits.
		C303.4	Design and implement 8051 microcontroller based system
		C303.5	Develop application based microcontroller systems.
38	C304 - Theory Of Computation (CS8501)	C304.1	understand the language hierarchy
		C304.2	construct automata for any given pattern and find its equivalent regular expressions
		C304.3	Design a context free grammar for any given language
		C304.4	understand Turing machines and their capability
		C304.5	understand undecidable problems and NP class problems
39	C305 - Object Oriented Analysis And Design (CS8592)	C305.1	Understand the fundamentals of object modeling and differentiate Unified Process from other approaches.
		C305.2	Design with static UML diagrams
		C305.3	Design with the UML dynamic and implementation diagrams.
		C305.4	Improve the software design with design patterns.
		C305.5	Test the software against its requirements specification
	Microprocessors And Laboratory (EC8691)	C306.1	Write ALP Programmes for fixed and Floating Point and Arithmetic operations
		C306.2	Interface different I/Os with processor

S.NO	COURSE NAME	COURSE OUT COMES	
40	C306 - Microprocessors Microcontrollers (EC868)	C306.3	Generate waveforms using Microprocessors
		C306.4	Execute Programs in 8051
		C306.5	Explain the difference between simulator and Emulator
41	C307 - Object Oriented Analysis And Design Laboratory ( CS8582)	C307.1	Capture the requirements specification for an intended software system
		C307.2	Draw the UML diagrams for the given specification
		C307.3	Map the design properly to code
		C307.4	Test the software system thoroughly for all scenarios
		C307.5	Improve the design by applying appropriate design patterns.
42	C308 - Networks Laboratory (CS8581 )	C308.1	Implement various protocols using TCP and UDP.
		C308.2	Compare the performance of different transport layer protocols.
		C308.3	Use simulation tools to analyze the performance of various network protocols.
		C308.4	Analyze various routing algorithms
		C308.5	Implement error correction codes.
43	C309 - Internet Programming (CS8651 )	C309.1	Construct a basic website using HTML and Cascading Style Sheets.
		C309.2	Build dynamic web page with validation using Java Script objects and by applying different event handling mechanisms.
		C309.3	Develop server side programs using Servlets and JSP.
		C309.4	Construct simple web pages in PHP and to represent data in XML format
		C309.5	Use AJAX and web services to develop interactive web applications
44	C310 - Artificial Intelligence (CS8691)	C310.1	Know about Artificial Intelligence Problems and their different Strategies and Solving methods
		C310.2	Solve problems by recognize various representations such as Logical languages.
		C310.3	Understand Expert Systems- Inference Systems Input , Output and Process.
		C310.4	Implement Artificial Intelligence Algorithms and their use
		C310.5	Know about Real Time Applications of AI

S.NO	COURSE NAME	COURSE OUT COMES	
45	C311 - Mobile Computing (CS8601)	C311.1	Explain the basics of mobile telecommunication systems
		C311.2	Illustrate the generations of telecommunication systems in wireless networks
		C311.3	Determine the functionality of MAC, network layer and Identify a routing protocol for a given Ad hoc network
		C311.4	Explain the functionality of Transport and Application layers
		C311.5	Develop a mobile application using android/blackberry/ ios/ Windows SDK
46	C312 - Compiler Design (CS8602)	C312.1	Demonstrate the fundamental knowledge of various phases of compiler and Programming Language basics.
		C312.2	Represent language tokens using regular expressions, context free grammar and finite automata and design lexical analyzer for a language.
		C312.3	Compare top down with bottom up parsers, and develop appropriate parser to produce parse tree representation of the input.
		C312.4	Write program in runtime environment and evaluate the code generation platform.
		C312.5	Apply optimization techniques to intermediate code and generate machine code for high level language program.
47	C313 - Distributed Systems (CS8603)	C313.1	Elucidate the foundations and issues of distributed systems
		C313.2	Understand the various synchronization issues and global state for distributed systems.
		C313.3	Understand the Mutual Exclusion and Deadlock detection algorithms in distributed systems
		C313.4	Describe the agreement protocols and fault tolerance mechanisms in distributed systems.
		C313.5	Describe the features of peer-to-peer and distributed shared memory systems
48	C314 - Data Warehousing and Data Mining(CS8075)	C314.1	understand data warehouse concepts, architecture, business analysis and tools
		C314.2	Apply suitable pre-processing and visualization techniques for data analysis
		C314.3	Apply frequent pattern and association rule mining techniques for data analysis
		C314.4	Apply appropriate classification and clustering techniques for data analysis
		C314.5	Design datasets for real time applications using weka tools
49	Internet Programming Laboratory (CS8661)	C315.1	Construct Web pages using HTML/XML and style sheets.
		C315.2	Build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.
		C315.3	Develop dynamic web pages using server side scripting.

S.NO	COURSE NAME	COURSE OUT COMES	
	C315 - Inter Laboratory	C315.4	Use PHP programming to develop web applications.
		C315.5	Construct web applications using AJAX and web services.
50	C316 - Mobile Application Development Laboratory (CS8662)	C316.1	Develop mobile applications using GUI and Layouts.
		C316.2	Develop mobile applications using Event Listener.
		C316.3	Develop mobile applications using Databases.
		C316.4	Develop mobile applications using RSS Feed, Internal/External Storage, SMS, Multi-threading and GPS.
		C316.5	Analyze and discover own mobile app for simple needs.
51	C317 - Mini Project (CS8611)	C317.1	Apply practical knowledge within the chosen area of expertise for project development
		C317.2	Identify, analyze, design and handle prototype projects with a complete and organized approach
		C317.3	Contribute as an individual or in a team in development of technical projects
		C317.4	Develop effective communication skills for presentation of project related activities
		C317.5	prepare mini project reports and examination
52	C318 - Professional Communication (HS8581)	C318.1	Summarize various skills such as Soft Skills, Hard skills, employability and career Skills and demonstrate values such as Time Management and general awareness of current affairs
		C318.2	Demonstrate oneself before the audience by making effective presentations on introducing oneself, answering questions and visual presenting.
		C318.3	Demonstrate oneself by participating in group discussions, brainstorming sessions and question sessions. Develop activities to improve GD Skills.
		C318.4	Develop interview skills so as to be successful in them.
		C318.5	Develop adequate Soft Skills required for the workplace and long-term career.