



ACADEMIC YEAR 2020-21 [ODD SEMESTER]

COURSE OUTCOMES OF ALL THE COURSES OFFERED IN INFORMATION SCIENCE AND ENGINEERING

I SEMESTER

Course Code	Course Name	L	T	P	C
MAT 101	Engineering Mathematics-1	3	1	0	4

Course Outcomes: On successful completion of the course the students shall be able to:

- 1) Apply the calculus with confidence so as to find the solutions of a wide variety of mathematical and engineering problems.
- 2) Apply appropriate models and techniques to define and evaluate line, surface and volume integrals.
- 3) Perform operations with vectors in two and three dimensional space.
- 4) Use the concept of matrices for various applications.

Course Code	Course Name	L	T	P	C
PHY 101	Engineering Physics	4	0	0	4

Course Outcomes: On successful completion of the course the students shall be able to:

- 1) Apply the knowledge of laser and optical fibers in various applications.
- 2) Compare conductors, semiconductors, dielectric and superconducting materials.
- 3) Describe the concepts of modern physics and quantum mechanics.

Course Code	Course Name	L	T	P	C
EEE 101	Elements of Electrical Engineering	3	0	0	3

Course Outcomes: On successful completion of the course the students shall be able to:

- 1) Explain the basic electrical parameters of electrical circuits excited by D.C. & A.C. Sources.
- 2) Describe the principle of operation & applications of AC & DC Machines.
- 3) Explain various types of Measuring Instruments used in Electrical Engineering.
- 4) Outline different aspects of Electrical Wiring and safety.

Course Code	Course Name	L	T	P	C
CIV 101	Elements Of Civil Engineering	3	0	0	3

Course Outcomes: On successful completion of the course the students shall be able to:

- 1) Recognize the significance of various disciplines in civil engineering.
- 2) Define the fundamental concepts of engineering mechanics.
- 3) Summarize the process of resultant calculation in coplanar non-concurrent force systems.
- 4) Explain the fundamentals of equilibrium in coplanar force systems.

Course Code	Course Name	L	T	P	C
MEC 152	Engineering Graphics	2	0	4	4

Course Outcomes: On successful completion of the course the students shall be able to:

- 1) Sketch the orthographic projections of points, lines, Planes and Solids.
- 2) Sketch Isometric projection of single and multiple solids
- 3) Obtain orthographic projection of Points, Lines, Planes and Solids using a software
- 4) Draw Isometric projection of single and multiple solids using the software.

Course Code	Course Name	L	T	P	C
ENG 103	Technical Written Communication	2	1	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Apply technical communication strategies for effective communication 2) Use vocabulary and grammar properly and correctly 3) Write technical/professional emails, letters and memo 4) Develop skills in writing sentences and paragraphs for websites and wikis 					

Course Code	Course Name	L	T	P	C
PHY 151	Engineering Physics Lab	0	0	2	1
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) To gain practical knowledge by applying the experimental methods to correlate with the Physics theory. 2) Analyze the principle involved in the various instruments. 3) Apply the analytical techniques and graphical analysis to the experimental data. 					

Course Code	Course Name	L	T	P	C
MEC 151	Workshop Practice	0	0	2	1
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Demonstrate the metal removal process by using appropriate fitting tools and assemble the parts. 2) Prepare sheet metal models by the application of concept of development of lateral surfaces of solids. 3) Produce various welded joints using the principle of arc welding. 4) Explain the connections pertaining to basic electrical house wiring techniques and plumbing methods. 5) Select measuring instrument to measure particular parameters in a work piece. 					

Course Code	Course Name	L	T	P	C
PPS 105	Building Self Confidence	0	0	2	1
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Demonstrate confidence in their day to day activities 2) Develop effective communication skills 3) Demonstrate strong abilities of working cordially in teams 4) Adapt to different situations 					

Course Code	Course Name	L	T	P	C
CHE 101	Engineering Chemistry	4	0	0	4
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Relate the importance of chemical sciences in solving engineering problems. 2) Describe the applications of polymers and liquid crystals for various industries. 3) Discuss the importance of various chemical and electrochemical sources in energy systems. 4) Explain the fundamental principles in water treatment and corrosion process 					

Course Code	Course Name	L	T	P	C
ECE 101	Elements of Electronics Engineering	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Describe the significance of the basic electrical laws and electronic devices. 2) Explain the operating principles of BJT and its applications. 3) Summarize the concepts of number system, Boolean laws and logic gates. 4) Discuss the basic concepts of communication systems, Microprocessors and enhance their knowledge skills. 					

Course Code	Course Name	L	T	P	C
MEC 101	Elements of Mechanical Engineering	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Describe different types of energy resources, prime movers, refrigeration and air-conditioning system. 2) Explain various power transmission systems used in Mechanical Engineering. 3) Classify different metal cutting processes and machine tools used in industries. 4) Distinguish between different metal joining processes like Welding, Brazing and Soldering, 3D printing. 					

Course Code	Course Name	L	T	P	C
CIV 102	Environmental Science and Disaster Management	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Recognize various types of natural resources and their problems during harnessing and utilization. 2) Identify various kinds of ecosystems and biodiversity conservation with examples 3) Discuss about environmental problems, their impacts and mitigative measures. 4) Identify the government acts in protecting different environmental components by anthropogenic interferences. 					

Course Code	Course Name	L	T	P	C
ENG 104	Technical Spoken Communication	1	0	2	2
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Make use of phonetic sounds, vowels and consonants, accent, syllables, stress and intonation. 2) Summarize the audios listening software, BBC audio podcasts and assessing the students orally in the Lab and to improve a reader's efficacy for better comprehension. 3) Organize conversation skills, Situational Expressions, and Idiomatic Expressions for Effective Communication. 4) Take part in speech presentation publicly speaking to an audience with intent to inform, demonstrate, explain or persuade. 					

Course Code	Course Name	L	T	P	C
CSE 151	Computer Programming	0	2	4	4
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Identify the solution to the problem through programming. 2) Apply the basic concepts and control structures in programming. 3) Apply the concepts of array and strings to represent data and its operations. 4) Illustrate the concepts of functions, structure and unions in programming. 					

Course Code	Course Name	L	T	P	C
CHE 151	Engineering Chemistry Lab	0	0	2	1
Course Outcomes: On successful completion of the course the students shall be able to: 1) Identify various apparatus and equipment for the experimentation 2) Estimate the chemical samples by different types of titrimetric and instrumental analysis 3) Interpret the recorded data with appropriate representations 4) Demonstrate effectively during technical group discussions					

Course Code	Course Name	L	T	P	C
PPS 105	Building Self Confidence	0	0	2	1
Course Outcomes: On successful completion of the course the students shall be able to: 1) Demonstrate confidence in their day to day activities 2) Explain the basic electrical parameters of Electrical Circuit excited by DC and AC sources 3) Describe the principle of operation and applications of DC and AC machines 4) Explain various types of measuring instruments used in Electrical Engineering 5) Outline different aspects of Electrical wiring and safety					

COURSE OUTCOMES OF ALL THE COURSES OFFERED IN INFORMATION SCIENCE AND ENGINEERING

III SEMESTER

Course Code	Course Name	L	T	P	C
MAT-107	Transform Techniques, Partial Differential Equations and Probability	3	1	0	4
Course Outcomes: On successful completion of the course the students shall be able to: 1) Apply Laplace transform and inverse Laplace transform technique to solve differential equations. 2) Express the continuous functions in terms of Fourier transform. 3) Employ z-transform technique to solve difference equations. 4) Construct a variety of partial differential equations and solve problems involving heat transfer and wave forms by the method of separation of variables 5) Fit various types of curves to the experimental data and Formulate solutions for engineering problems involving probability					

Course Code	Course Name	L	T	P	C
CSE 201	Data Structures	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: 1) Implement modularized solutions for given problem using structures and pointers. 2) Choose an appropriate linear data structure for a given computation. 3) Choose an appropriate non-linear data structure for a given computation 4) Identify the need for heap and hash functions for given computational scenario					

Course Code	Course Name	L	T	P	C
CSE 202	Digital Design	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: 1) Apply minimization techniques to Boolean equations to drawing digital circuits 2) Select the appropriate combinational circuits for simple applications 3) Apply the knowledge of state table and state diagram to draw sequential circuits					

Course Code	Course Name	L	T	P	C
CSE 203	Discrete Mathematics	3	1	0	4
Course Outcomes: On successful completion of the course the students shall be able to: 1) Describe a logic sentence in terms of predicates, quantifiers, and logical connectives. 2) Problems on Functions and Relations using basic principles of Set Theory. 3) Explain the concepts of Boolean Algebra. 4) Apply basic counting techniques to combinatorial problem.					

Course Code	Course Name	L	T	P	C
CSE 223	Computer Architecture and Organization	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: 1) Describe the basic components of a computer and their interconnections. [Comprehension Level] 2) Explain instruction set architecture and input/output units. [Comprehension Level] 3) Apply appropriate techniques to carry out selected arithmetic operations. [Application Level] 4) Appreciate the organization of components such as processing unit, memory system and design of pipelining architecture. [Comprehension Level]					

Course Code	Course Name	L	T	P	C
CSE 251	Data Structures Lab	0	0	4	2
Course Outcomes: On successful completion of the course the students shall be able to: 1) Implement modularized solutions for given problem using structures and pointers 2) Apply an appropriate linear data structure for a given computation. 3) Apply an appropriate non-linear data structure for a given computation 4) Apply heaps and hashing ds for given problem					

Course Code	Course Name	L	T	P	C
CSE 252	Digital Design Laboratory	0	0	2	1
Course Outcomes: On successful completion of the course the students shall be able to: 1) Apply simplification techniques for complex Boolean functions using logic gates to experiment digital circuits. 2) Verify the working of various combinational and sequential circuits. 3) Implement logic circuits that can function for given scenario using HDL.					

Course Code	Course Name	L	T	P	C
CSE 258	Problem Solving using Python	1	0	4	5
Course Outcomes: On successful completion of the course the students shall be able to: 1) Apply basic programming concepts to solve problems. (K) 2) Apply data structures using python. (A) 3) Apply concepts of File Handling, Exception Handling in python (A) 4) Practice concepts of Object-Oriented Programming as used in Python (A) 5) Employ data processing and visualization using python modules (A)					

**COURSE OUTCOMES OF ALL THE COURSES OFFERED IN INFORMATION SCIENCE
AND ENGINEERING**

V SEMESTER

Course Code	Course Name	L	T	P	C
CSE 226	Optimization Technique	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Formulate real life problem into a mathematical programming problem 2) Use duality and post-optimality to measure the sensitivity of decision variable and constraint of a linear programming problem. 3) Solve linear and nonlinear problems, and use these methods to solve real life problems. 4) Solve unconstraint programming problems, and use these methods to solve practical problems. 					

Course Code	Course Name	L	T	P	C
CSE 204	Object Oriented Programming	1	0	4	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Practice programs using control structures and object oriented concepts. 2) Apply the concept of arrays, strings, polymorphism & inheritance to solve problems. 3) Use interface, packages for applications. 4) Demonstrate the concepts of error handling mechanism and multithreading. 5) Illustrate GUI applications and Collections to solve problems. 					

Course Code	Course Name	L	T	P	C
CSE 324	Internet and Web Technologies	1	0	4	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Describe the concept of web application terminologies and internet tools 2) Employ HTML tags and CSS features to develop a web site. 3) Apply CSS features to develop a web site 4) Use java-script concepts for the development of dynamic web site. 5) Demonstrate database driven web application with server side script using PHP. 					

Course Code	Course Name	L	T	P	C
CSE 261	Machine Learning using Python	2	0	2	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Produce machine learning models for predictive analytics. 2) Apply optimization and hyper parameter tuning techniques for machine learning algorithms. 3) Demonstrate different types of clustering techniques. 4) Employ time series forecasting techniques/models for real world problems. 5) Illustrate advanced concepts in machine learning such as recommender systems, sentiment classification, etc. 					

Course Code	Course Name	L	T	P	C
CSE 227	Software Engineering and Project Management	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Describe the software engineering principles, ethics and process models. 2) Identify the requirements and appropriate design models for a given application. 3) Discuss the various types of testing methods and Quality Assurance. 4) Apply project planning, scheduling, evaluation and risk management principles for a given project. 					

Course Code	Course Name	L	T	P	C
CSE 228	Principles of Artificial Intelligence	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Explain the Basic Concepts of Artificial Intelligence.[L2] 2) Apply Techniques Logic Rules for Knowledge Representation.[L3] 3) Apply Artificial Intelligence techniques for selected problem solving. [L3] 4) Apply probabilistic reasoning in AI. [L3] 					

Course Code	Course Name	L	T	P	C
CSE 367	Data Visualization	1	0	4	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Understand the visual representation of data. [Application] 2) Analyze the one, two and multi-dimensional data for the data visualization process. [Application] 3) Evaluate the visualization of text and graph structures. [Application] 4) Construct the effective model for data visualization by using various techniques. [Application] 					

Course Code	Course Name	L	T	P	C
CSE 305	Parallel Computing	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Classify Parallel Systems [Comprehension] 2) Employ a Parallel Algorithm for the given Problem [Application] 3) Demonstrate the usage of Parallel Programming Tools [Application] 					

Course Code	Course Name	L	T	P	C
CSE 325	Introduction to Bioinformatics	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Understand the DNA Protein sequence and structures. (Bloom's Level: Knowledge) 2) Explain the file formats and sequence alignments of DNA sequence. (Bloom's Level: Comprehension) 3) Apply the techniques of the motifs discovery for the analysis of Protein Sequence. (Bloom's Level: Application) 					

Course Code	Course Name	L	T	P	C
CSE 368	Distributed System	3	0	0	3
Course Outcomes: On successful completion of the course the students shall be able to: <ol style="list-style-type: none"> 1) Describe the functional characteristics and challenges in distributed system (Knowledge level) 2) Summarize the mechanism of inter process, indirect communication techniques. (Comprehensive level) 3) Discuss the features of peer to peer services and file systems. (Comprehensive level) 4) Apply synchronization techniques. (Application level) 5) Explain the different process and resource management approaches. (Comprehensive level) 					