### I YEAR/I SEMESTER (2019-2023 Batch)

## **2019-2020(Odd Semester)**

COURSE CODE	101	
Subject Code	HS8151	Year of Study: 2019-2020
Subject Name	Communicative English	Semester:01
Course Outcomes No.	Course Outcomes	Knowledge Level
C101.1	Read articles of a general kind in magazines and newspapers.	K4
C101.2	Participate effectively in informal conversations; introduce themselves and their friends and express opinions in English.	К3
C101.3	Comprehend conversations and short talks delivered in English	К3
C101.4	Write short essays of a general kind and personal letters and emails in English	К3
C101.5	To strengthen social protocols in career development and making career changes.	К3

Course					I	Program	Outcom	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C101.1	-	-	-	-	-	-	-	-	3	3	2	2	-	-	-
C101.2	-	-	-	-	-	-	-	-	2	3	2	3	-	-	-
C101.3	-	-	-	-	-	-	-	-	1	3	1	2	-	-	-
C101.4	-	-	1	-	-	1	-	-	1	3	1	3	-	-	-
C101.5	-	-	-	-	-	-	-	-	3	3	2	1	-	-	-
C101 (Average)	-	-	1	-	-	1	-	-	2	3	1.6	2.2	-	-	-

COURSE CODE	102	
Subject Code	MA8151	Year of Study: 2019-2020
Subject Name	Engineering Mathematics	Semester:01
Course Outcomes No.	Course Outcomes	Knowledge Level
C102.1	Use both the limit definition and rules of differentiation to differentiate functions.	К3
C102.2	Apply differentiation to solve maxima and minima problems. Able to use differential calculus ideas on several variable functions.	K3
C102.3	Apply different methods of integration in solving practical problems.	К3
C102.4	Apply multiple integral ideas in solving areas, volumes and other practical problems.	К3
C102.5	Apply various techniques in solving differential equations.	K3

Course					P	rogram	Outcom	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C102.1	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C102.2	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C102.3	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C102.4	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C102.5	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C102 (Average)	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-

COURSE CODE	103	
Subject Code	PH8151	Year of Study :2019-2020
Subject Name	Engineering Physics	Semester:01
Course Outcomes No.	Course Outcomes	Knowledge Level
C103.1	Gain knowledge on the basics of properties of matter and its applications	K2
C103.2	Apply the knowledge on the concepts of waves and optical devices and their applications in fibre optics	К3
C103.3	Apply the knowledge on the concepts of thermal properties of materials and their applications in expansion joints and heat exchangers	К3
C103.4	Understand the advanced physics concepts of quantum theory and its applications in tunneling microscopes	K2
C103.5	Understand the basics of crystals, their structures and different crystal growth techniques.	K2

Course					I	Program	Outcome	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C103.1	3	1	2	-	-	-	-	-	-	-	-	-	-	-	-
C103.2	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-
C103.3	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C103.4	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-
C103.5	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
C103 (Average)	2.4	1.4	1.6	-	-	-	-	-	-	-	-	-	-	-	-

COURSE CODE	104	
Subject Code	CY8151	Year of Study :2019- 2020
Subject Name	Engineering Chemistry	Semester: 01
Course Outcomes No.	Course Outcomes	Knowledge Level
C104.1	Students conversant about the boiler feed water requirements, water quality and treatment methods.	K3
C104.2	Students acquire knowledge about the adsorption process and its application in pollution abatement and catalysis.	К3
C104.3	Students understand the basic concepts of phase rule and its applications to single and two component systems and appreciate the purpose and significance of alloys.	K2
C104.4	Students can understand the different types of fuel and manufacture of liquid solid and gaseous fuel and combustion process.	К3
C104.5	Students understand the principles, working processes and applications of energy sources and storage devices.	K3

Course					I	Program	Outcome	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C104.1	3	3	3	-	-	1	-	-	-	-	-	-	-	-	-
C104.2	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C104.3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C104.4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C104.5	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C104 (Average)	3	3	3	-	-		-	-	-	-	-	-	-	-	-

COURSE CODE	105	
Subject Code	GE8151	Year of Study :2019-2020
Subject Name	Problem Solving and Python Programming	Semester: 01
Course Outcomes No.	Course Outcomes	Knowledge Level
C105.1	Develop algorithmic solutions to simple computational problems.	K2
C105.2	Read, write, execute by hand simple Python programs	K1
C105.3	Structure simple Python programs for solving problems.	К3
C105.4	Decompose a Python program into functions.	K1
C105.5	Represent compound data using Python lists, tuple and dictionaries.	К3

Course					Pr	ogram (	Outcome	es					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C105.1	3	2	1	1	1	-	-	-	1	1	1	1	1	2	1	
C105.2	3	2	1	1	2	-	-	-	1	1	1	1	1	2	1	
C105.3	3	2	1	1	2	-	-	-	1	1	1	1	1	2	1	
C105.4	3	2	1	1	2	-	-	-	1	1	1	1	1	2	1	
C105.5	3	2	1	1	2	-	-	-	1	1	1	1	1	2	1	
C105 (Average)	3	2	1	1	1.8	-	-	-	1	1	1	1	1	2	1	

COURSE CODE	106	
Subject Code	GE8152	Year of Study :2019-2020
Subject Name	Engineering Graphics	Semester: 01
Course Outcomes No.	Course Outcomes	Knowledge Level
C106.1	Familiarize with the fundamentals and standards of Engineering Graphics	K2
C106.2	Perform free hand sketching of basic geometrical constructions and multiple view of objects	К3
C106.3	project orthographic projections of lines and plane surfaces	K3
C106.4	draw projections and solids and development of surfaces	K3
C106.5	visualize and to project isometric and perspective sections of simple solids	K6

Course					Prog	gram Out	comes						PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C106.1	ı	1	1	-	-	-	1	-	-	-	-	-	-	-	-
C106.2	-	3	3	-	-	-	1	-	-	-	-	-	-	-	-
C106.3	-	3	3	-	-	-	1	-	-	-	-	-	-	-	-
C106.4	-	3	3	-	-	-	1	-	-	-	-	-	-	-	-
C106.5	-	3	3	-	-	-	1	-	-	-	-	-	-	-	-
C106 (Average)	1	2.6	2.6	-	-	-	1	-	-	-	-	-	-	-	-

COURSE CODE	107	
Subject Code	GE8161	Year of Study :2019-2020
Subject Name	Problem Solving and Python Programming Laboratory	Semester: 01
Course Outcomes	Course Outcomes	Knowledge
No.	Course Outcomes	Level
C107.1	Write, test, and debug simple Python programs.	K1
C107.2	Implement Python programs with conditionals and loops.	K3
C107.3	Develop Python programs step-wise by defining functions and calling them.	K2
C107.4	Use Python lists, tuples, dictionaries for representing compound data.	K5
C107.5	Read and write data from/to files in Python.	K2

					F	rogram	Outcon	nes					PSOs				
<b>Course Outcomes</b>	1										1	2	3				
C107.1	3	2	1	1	1	-	-	1	1	1	1	1	1	2	1		
C107.2	3	2	1	1	2	-	-	1	1	1	1	1	1	2	1		
C107.3	3	2	1	1	2	-	-	1	1	1	1	1	1	2	1		
C107.4	3	2	1	1	2	-	-	1	1	1	1	1	1	2	1		
C107.5	3	2	1	1	2	-	-	1	1	1	1	1	1	2	1		
C107 (Average)	3	2	1	1	1.8	-	-	1	1	1	1	1	1	2	1		

COURSE CODE	108	
Subject Code	BS8161	Year of Study :2019-2020
Subject Name	Physics and Chemistry Laboratory	Semester: 01
Course Outcomes No.	Course Outcomes	Knowledge Level
C108.1	the hands on exercises undergone by the students will help them to apply physics principles of optics and thermal physics to evaluate engineering properties of materials	К3
C108.2	the students will be able to understand measurement technology usage of new instruments and real time applications in engineering studies	K3
C108.3	Students will be outfitted with hands-on knowledge in the quantitative chemical analysis of water quality related parameters	K3
C108.4	Students able to determine the conductance and potential of the given solution by titrimetric methods	К3

Course					I	rogram	Outcon	ies					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C108.1	3	3	2	-	-	-	-	2	3	3	-	-	-	-	-
C108.2	3	3	3	-	-	-	-	2	3	3	-	-	-	-	-
C108.3	3	3	3	-	-	-	-	2	3	3	-	-	-	-	-
C108.4	3	3	3	-	-	-	-	2	3	3	-	-	-	-	-
C108 (Average)	3	3	2.75	-	-	-	-	2	3	3	-	-	-	-	-

### I Year/II Semester

### **2019-2020(Even Semester)**

COURSE CODE	109	
Subject Code	HS8251	Year of Study :2019-2020
Subject Name	Technical English	Semester: 02
Course Outcomes No.	Course Outcomes	Knowledge Level
C109.1	Read technical texts and write area- specific texts effortlessly.	K2
C109.2	Listen and comprehend lectures and talks in their area of specialization successfully	К3
C109.3	Speak appropriately and effectively in varied formal and informal contexts.	K6
C109.4	Write reports and winning job applications	K1
C109.5	To learn writing reporting and job related components for career development	K1

Course					Prog	gram Ou	tcomes						PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C109.1	-	-	-	-	-	-	-	-	3	3	2	2	-	-	-
C109.2	-	-	-	-	-	-	-	-	2	3	2	2	-	-	-
C109.3	-	-	-	-	-	-	-	-	1	3	1	3	-	-	-
C109.4	-	-	1	-	-	1	-	-	1	3	1	2	-	-	-
C109.5	-	-	-	-	-	-	-	-	3	3	2	1	-	-	-
C109 (Average)	-	-	1	-	-	1	-	-	2	3	1.6	2.2	-	-	-

COURSE CODE	110	
Subject Code	MA8251	Year of Study :2019- 2020
Subject Name	Engineering Mathematics II	Semester: 02
Course Outcomes No.	Course Outcomes	Knowledge Level
C110.1	Use the matrix algebra methods for solving practical problems.	K3
C110.2	Evaluation of line, surface and volume integrals using Gauss, Stokes and Green's theorems and their verification.	K5
C110.3	Understanding of Analytic functions, conformal mapping.	K2
C110.4	Application of complex integration.	К3
C110.5	Application of Laplace Transform Technique to differential equations with constant coefficients.	К3

Course				PSOs											
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C110.1	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C110.2	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C110.3	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C110.4	3	3	2	_	-	-	-	-	2	-	-	-	-	-	-
C110.5	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-
C110 (Average)	3	3	2	-	-	-	-	-	2	-	-	-	-	-	-

COURSE CODE	111								
Subject Code	PH8252	Year of Study :2019-2020							
Subject Name	Physics for information science	Semester: 02							
Course Outcomes No.	Course Outcomes								
C111.1	Gain knowledge on classical and quantum electron theories, and energy band structures	K2							
C111.2	Acquire knowledge on basics of semiconductor physics and its applications in various devices	K3							
C111.3	Get knowledge on magnetic properties of materials and their applications in data storage	K3							
C111.4	Have the necessary understanding on the functioning of optical materials for optoelectronics	K2							
C111.5	Understand the basics of quantum structures and their applications in carbon electronics	K3							

Course					Pro	gram O	utcome	s					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C111.1	1	1	1	-	-	1	-	-	1	-	-	-	-	-	-	
C111.2	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
C111.3	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
C111.4	1	2	2	-	-	-	-	-	-	-	-	-	-	-	-	
C111.5	2	1	2	-	-	-	-	-	-	-	-	-	-	-	-	
C111 (Average)	1.2	1.2	1.8	-	-	-	-	-	-	-	-	-	-	-	-	

COURSE CODE	112	
Subject Code	BE8255	Year of Study :2019-2020
Subject Name	Basic Electrical, Electronics and Measurement Engineering	Semester: 02
Course Outcomes	Course Outcomes	Knowledge
No.	Course Outcomes	Level
C112.1	Discuss the essentials of electric circuits and analysis	K4
C112.2	Discuss the basic operation of electric machines and transformers	K2
C112.3	Discuss the basic operation of electric machines	K2
C112.4	Introduction of renewable sources and common domestic loads.	K2
C112.5	Introduction to measurement and metering for electric circuits.	K2

Course			PSOs												
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
<b>Course Outcomes</b>		Program Outcomes													;
C112.1		3	1	_	_	_	_	-	_	-	-	_		_	-
C112.2	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
C112.3	2	3	1	-	-	-	-	-	-	-	-	-	-	-	-
C112.4	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
C112.5	2	3	1	-	-	-	-	1	-	-	-	-	1	-	-
C112 (Average)	1.8	2.4	1.8	-	-	-	-	-	-	-	-	-	-	-	-

	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C113.1	2	3	1	-	-	-	-	-	-	-	-	-	-	-	-
C113.2	1	2	3	-	-	-	_	-	-	-	-	-	-	-	-
C113.3	2	3	1	-	-	-	-	-	-	-	-	-	-	-	-
C113.4	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
C113.5	2	3	1	-	-	-	-	-	-	-	-	-	-	-	-
C113 (Average)	1.8	2.4	1.8	-	-	-	-	-	-	-	-	-	-	-	-

COURSE CODE	113	
Subject Code	GE8291	Year of Study :2019-2020
Subject Name	Environmental Science and Engineering	Semester: 02
Course Outcomes No.	Course Outcomes	Knowledge Level
C113.1	Students understand about nature and facts about environment, various ecosystems and biodiversity and its conservation	K2
C113.2	Students understand various pollution and its control measures, management of solid waste and various natural disasters.	К3
C113.3	Students understand about different types of natural resources and their conservation.	K2
C113.4	Students understand sustainable development and various social issues and possible solutions and Environmental protection acts.	K2
C113.5	Students understand the population related to environment and human health and finding technological solutions.	K2

COURSE CODE	114	
Subject Code	CS8251	Year of Study :2019-2020
Subject Name	Programming In C	Semester: 02
Course Outcomes No.	Course Outcomes	Knowledge Level
C114.1	Develop simple applications in C using basic constructs	К3
C114.2	Design and implement applications using arrays and strings	K2
C114.3	Develop and implement applications in C using functions and pointers.	К3
C114.4	Develop applications in C using structures.	К3
C114.5	Design applications using sequential and random access file processing.	K1

Course					P	rogram	Outcom	es						PSOs	
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C114.1	3	3	2	2	2	-	-	-	1	1	1	1	2	2	1
C114.2	3	2	2	2	2	-	-	-	1	1	1	1	2	2	1
C114.3	3	3	2	2	2	1	ı	ı	1	1	1	1	2	2	1
C114.4	3	3	2	2	2	-	1	-	1	1	1	1	2	2	1
C114.5	2	3	2	2	2	-	-	-	1	1	1	1	1	3	2
C114 (Average)	2.8	2.8	2	2	2	-	•	-	1	1	1	1	1.8	2.2	1.2

COURSE CODE	115							
Subject Code	GE8261	Year of Study :2019-2020						
Subject Name	Engineering Practices Laboratory	Semester: 02						
Course Outcomes No.	Course Outcomes							
C115.1	Fabricate carpentry components and pipe connections including plumbing works	К3						
C115.2	Use welding equipment's to join the structures. Carry out the basic machining operations Make the models using sheet metal works. Illustrate on centrifugal pump, Air conditioner, operations of smithy, foundry and fittings	К3						
C115.3	Carry out basic home electrical works and appliances, Measure the electrical quantities	K3						
C115.4	Elaborate on the components, gates, soldering practices	К3						

Course					P	rogram	Outcome	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C115.1	3	3	3	3	3	3	-	2	3	2	-	3	-	-	-
C115.2	3	3	3	2	3	3	-	2	3	3	-	3	-	-	-
C115.3	3	3	3	3	3	3	-	2	3	3	-	3	-	-	-
C115.4	3	3	3	2	3	3	-	2	3	3	-	3	-	_	-
C115 (Average)	3	3	3	2.5	3	3	-	2	3	2.75	-	3	-	-	-

COURSE CODE	116								
Subject Code	CS8261	Year of Study :2019-2020							
Subject Name	Programming In C Laboratory	Semester: 02							
Course	Course Outcomes	Knowledge							
Outcomes No.	Course Outcomes								
C116.1	Develop C programs for simple applications making use of basic constructs	K6							
C116.2	Develop C programs for simple applications making use of arrays and strings.	K6							
C116.3	Develop C programs involving recursion and functions.	K6							
C116.4	Develop C programs involving pointers and structures.	K6							
C116.5	Design applications using sequential and random access file processing.	K2							

Course					]	Program	Outcom	nes					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C116.1	3	2	1	1	1	-	-	1	1	1	1	1	2	2	1
C116.2	3	2	1	1	2	-	-	1	1	1	1	1	2	2	1
C116.3	3	2	1	1	2	-	-	1	1	1	1	1	2	2	1
C116.4	3	2	1	1	2	-	-	1	1	1	1	1	2	2	1
C116.5	3	2	1	1	2	-	-	1	1	1	1	1	1	3	2
C116 (Average)	3	2	1	1	1.8	-	-	1	1	1	1	1	1.8	2.2	1.2

## II Year/III Semester

## **Odd Semester(2020-2021)**

COURSE CODE	201	
Subject Code	MA8351	Year of Study :2020-2021
Subject Name	Discrete Mathematics	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C201.1	Have knowledge of the concepts needed to test the logic of a program.	К3
C201.2	Be aware of the counting principles.	К3
C201.3	Have an understanding in identifying structures on many levels.	К3
C201.4	Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.	K4
C201.5	Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science.	К3

Course Outcomes		Program Outcomes													
<b>Course Outcomes</b>	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C201.1	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C201.2	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C201.3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C201.4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C201.5	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C201 (Average)	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-

COURSE CODE	202	
Subject Code	CS8351	Year of Study :2020-2021
Subject Name	Digital Principles And System Design	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C201.1	Simplify Boolean functions using K-Map.	К3
C202.2	Design and Analyze Combinational and Sequential Circuits.	K6
C202.3	Design and Analyze synchronous and asynchronous sequential circuits	K6
C202.4	Implement designs using Programmable Logic Devices.	K6
C202.5	Write HDL code for combinational and sequential circuits.	K6

Course					F	rogram	Outcom	ies					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C201.1	3	2	1	-	-	-	-	-	-	-	-	-	1	-	-	
C202.2	3	2	1	-	-	-	-	-	-	-	-	-	1	-	3	
C202.3	3	2	1	3	-	-	-	-	-	-	-	-	1	-	3	
C202.4	2	3	3	2	-	-	-	-	-	-	-	-	1	-	3	
C202.5	2	-	2	-	3	-	-	-	-	-	-	-	1	1	3	
C202 (Average)	2.6	2	2	1	3	-	-	-	-	-	-	-	1	1	1.75	

COURSE CODE	203	
Subject Code	CS8391	Year of Study :2020-2021
Subject Name	Data Structures	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C203.1	Implement abstract data types for linear data structures.	K6
C203.2	Apply the different linear and non-linear data structures to problem solutions.	К3
C203.3	Critically analyze the various sorting algorithms.	K4
C203.4	Analyze the usage of different Searching techniques.	K4
C203.5	Implement the Heaping methods for problem solving.	K6

Course					I	Program	Outcom	ies						PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
C203.1	3	3	3	1	1	1	-	-	1	1	1	1	2	2	1		
C203.2	3	2	3	1	1	1	-	-	1	1	1	1	2	2	2		
C203.3	3	3	3	1	1	1	-	-	1	1	1	1	3	3	2		
C203.4	3	3	2	1	1	1	ı	-	1	1	1	1	2	2	1		
C203.5	2	3	2	1	1	1	-	-	1	1	1	1	2	3	2		
C203 (Average)	2.8	2.8	2.6	1	1	1	-	-	1	1	1	1	2.2	2.4	1.6		

COURSE CODE	204	
Subject Code	CS8392	Year of Study :2020-2021
Subject Name	Object Oriented Programming	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C204.1	Develop Java programs using OOP principles	K6
C204.2	Develop Java programs with the concepts inheritance and interfaces	K6
C204.3	Build Java applications using exceptions and I/O streams	K6
C204.4	Develop Java applications with threads and generics classes	K6
C204.5	Develop interactive Java programs using swings	K6

Course					I	Program	Outcom	ies					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C204.1	3	3	3	1	1	1	-	-	1	1	1	1	3	2	1	
C204.2	3	2	3	1	1	1	-	-	1	1	1	1	3	2	2	
C204.3	3	3	3	1	1	1	-	-	1	1	1	1	3	3	2	
C204.4	3	3	2	1	1	1	-	-	1	1	1	1	2	2	1	
C204.5	2	3	2	1	1	1	-	-	1	1	1	1	2	3	2	
C204 (Average)	2.8	2.8	2.6	1	1	1	-	-	1	1	1	1	2.6	2.4	1.6	

COURSE CODE	205	
Subject Code	EC8395	Year of Study :2020-2021
Subject Name	Communication Engineering	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C205.1	Gain knowledge in amplitude modulation techniques	K3&K4
C205.2	Understand the concepts of Random Process to the design of communication systems	K2
C205.3	Gain knowledge in digital techniques	K3&K4
C205.4	Gain knowledge in sampling and quantization	К3
C205.5	Understand the importance of demodulation techniques	K2

Course					Pı	ogram O	utcomes						PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C205.1	3	3	2	2	1	2	-	-	-	-	-	1	-	-	1
C205.2	3	2	1	1	1	2	-	-	-	-	-	-	-	-	1
C205.3	3	3	2	2	2	2	-	-	-	-	-	-	-	-	1
C205.4	3	3	3	2	1	1	-	-	-	-	-	-	-	-	1
C205.5	3	3	2	3	3	2	-	-	-	-	-	1	-	-	1
C205 (Average)	3	2.8	2	2	1.6	1.8	-	·	-	-	-	1	-	-	1

COURSE CODE	206	
Subject Code	CS8381	Year of Study :2020-2021
Subject Name	Data Structures Laboratory	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C206.1	Write functions to implement linear and non-linear data structure operations.	K6
C206.2	Suggest appropriate linear / non-linear data structure operations for solving a given problem.	K6
C206.3	Appropriately use the linear / non-linear data structure operations for a given problem.	K1
C206.4	Apply appropriate hash functions that result in a collision free scenario for data storage and retrieval.	К3
C206.5	Apply searching and sorting algorithms techniques in linear / non-linear data structure	K3

Course					I	Program	Outcom	es					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C206.1	3	3	2	1	1	1	-	1	1	1	1	1	2	2	1	
C206.2	3	3	3	1	1	1	-	1	1	1	1	1	2	2	2	
C206.3	3	2	3	1	1	1	-	1	1	1	1	1	3	3	2	
C206.4	3	2	3	1	1	1	-	1	1	1	1	1	2	2	1	
C206.5	3	2	2	1	1	1	-	1	1	1	1	1	2	3	2	
C206 (Average)	3	2.4	2.6	1	1	1	-	1	1	1	1	1	2.2	2.4	1.6	

COURSE CODE	207	
Subject Code	CS8383	Year of Study :2020-2021
Subject Name	Object Oriented Programming Laboratory	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C207.1	Develop and implement Java programs for simple applications that make use of classes packages and interfaces.	K6
C207.2	Develop and implement Java programs with arraylist, exception handling and multithreading .list	K4
C207.3	Design applications using file processing, generic programming and event handling.	K6
C207.4	Implement Object Oriented Programs using exceptional handling concept	K4
C207.5	Design various ways of algorithm to solve the problems	K6

Course					]	Program	Outcor	nes					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C207.1	3	3	3	1	1	1	-	1	1	1	1	1	2	2	1	
C207.2	3	2	3	1	1	1	-	1	1	1	1	1	2	2	2	
C207.3	3	3	3	1	1	1	-	1	1	1	1	1	3	3	2	
C207.4	3	3	2	1	1	1	-	1	1	1	1	1	2	2	1	
C207.5	2	3	2	1	1	1	-	1	1	1	1	1	2	3	2	
C207 (Average)	2.8	2.8	2.6	1	1	1	-	1	1	1	1	1	2.2	2.4	1.6	

COURSE CODE	208	
<b>Subject Code</b>	CS8382	Year of Study :2020-2021
Subject Name	Digital Systems Laboratory	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C208.1	Implement simplified combinational circuits using basic logic gates	K6
C208.2	Implement combinational circuits using MSI devices.	K6
C208.3	Implement sequential circuits like registers and counters	K6
C208.4	Simulate combinational circuits using HDL	K6
C208.5	Simulate sequential circuits using HDL	K6

Course					]	Program	Outcom	nes						PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C208.1	1	2	1	2	-	-	-	-	1	1	-	-	1	-	2	
C208.2	1	2	1	2	-	-	-	-	1	1	-	-	1	-	2	
C208.3	1	2	1	3	-	-	-	-	1	1	-	-	1	-	2	
C208.4	1	2	1	2	-	-	-	-	1	1	-	-	1	-	2	
C208.5	1	2	1	2	3	-	-	-	1	1	-	-	1	3	2	
C208 (Average)	1	2	1	2	3	-	-	-	1	1	-	-	1	3	2	

COURSE CODE	209	
Subject Code	HS8381	Year of Study :2020-2021
Subject Name	Interpersonal Skills/Listening And Speaking	Semester: 03
Course Outcomes No.	Course Outcomes	Knowledge Level
C209.1	Listen and respond appropriately.	K4
C209.2	Participate in group discussions	K6
C209.3	Make effective presentations	K6
C209.4	Participate confidently and appropriately in conversations both formal and informal	K3
C209.5	To explain information formally and informally in the academic and business context	К3

G 0.1					Pı	ogram	Outcom	es						PSOs		
Course Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C209.1	-	-	-	1	-	-	-	-	3	3	1	2	-	-	-	
C209.2	-	-	-	-	-	-	-	-	3	3	1	2	-	-	-	
C209.3	-	-	-	-	-	-	-	-	3	3	1	2	-	-	-	
C209.4	-	-	-	-	-	-	-	-	3	3	2	3	-	-	-	
C209.5	-	-	1	-	-	-	-	-	3	3	2	2	-	-	-	
C209 (Average)	-	-	1	1	-	-	-	-	3	3	1.4	2.2	-	-	-	

### II Year/IV Semester

### **Even Semester (2020-2021)**

COURSE CODE	210	
Subject Code	MA8402	Year of Study :2020-2021
Subject Name	Probability And Queuing Theory	Semester: 04
Course Outcomes No.	Course Outcomes	Knowledge Level
C210.1	Understand the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon.	K2
C210.2	Understand the basic concepts of one and two dimensional random variables and apply in engineering applications	К3
C210.3	Apply the concept of random processes in engineering disciplines	К3
C210.4	Acquire skills in analysing queueing models.	K4
C210.5	Understand and characterize phenomenon which evolve with respect to time in a probabilistic manner.	K2

Course					F	rogram	Outcom	es						PSOs	
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C210.1	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C210.2	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C210.3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C210.4	3	3	3	-	-	-	ı	-	-	-	-	-	-	-	-
C210.5	3	3	3	-	1	-	1	-	1	1	ı	ı	ı	-	-

C210	2	2	2	-	-	-	-	-	-	-	-	-	-	-	_
(Average)															·

COURSE CODE	211	
Subject Code	CS8491	Year of Study :2020-2021
Subject Name	Computer Architecture	Semester: 04
Course	Course Outcomes	Knowledge
Outcomes No.	Course Outcomes	Level
C211.1	Understand the basics structure of computers, operations and instructions.	K2
C211.2	Design arithmetic and logic unit.	K6
C211.3	Understand pipelined execution and design control unit.	K2
C211.4	Understand parallel processing architectures.	K2
C211.5	Understand the various memory systems and I/O communication.	K2

Course					I	Program	Outcom	es					PSOs				
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
C211.1	3	3	3	-	-	-	-	-	-	-	-	-	2	2	1		
C211.2	3	2	3	-	-	-	-	-	-	-	-	-	2	2	2		
C211.3	3	3	3	-	-	-	-	-	-	-	-	-	3	3	2		
C211.4	3	3	2	-	-	-	-	-	-	-	-	-	2	2	1		
C211.5	2	3	2	-	-	-	-	-	-	-	-	-	2	3	2		
C211 (Average)	2.8	2.8	2.6	-	-	-	-	-	-	-	-	-	2.2	2.4	1.6		

COURSE CODE	212	
Subject Code	CS8492	Year of Study :2020-2021
Subject Name	Database Management Systems	Semester: 04
Course	Course Outcomes	Knowledge
Outcomes No.		Level
C212.1	Classify the modern and futuristic database applications based on size and complexity	К3
C212.2	Map ER model to Relational model to perform database design effectively	K6
C212.3	Write queries using normalization criteria and optimize queries	K6
C212.4	Compare and contrast various indexing strategies in different database systems	K2
C212.5	Appraise how advanced databases differ from traditional databases.	K5

Course					I	Program	Outcom	es					PSOs				
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
C212.1	3	3	3	1	1	1	-	-	1	1	1	1	2	2	1		
C212.2	3	2	3	1	1	1	-	-	1	1	1	1	2	2	2		
C212.3	3	3	3	1	1	1	-	-	1	1	1	1	3	3	2		
C212.4	3	3	2	1	1	1	-	-	1	1	1	1	2	2	1		
C212.5	2	3	2	1	1	1	-	-	1	1	1	1	2	3	2		

C212 (Average)	2.8	2.8	2.6	1	1	1	-	-	1	1	1	1	2.2	2.4	1.6
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COURSE CODE	213	
Subject Code	CS8451	Year of Study :2020-2021
Subject Name	Design And Analysis Of Algorithms	Semester: 04
Course	Course Outcomes	Knowledge
Outcomes No.	Course Outcomes	Level
C213.1	Design algorithms for various computing problems.	K6
C213.2	Analyze the time and space complexity of algorithms.	K4
C213.3	Critically analyze the different algorithm design techniques for a given problem.	K4
C213.4	Modify existing algorithms to improve efficiency.	K2
C213.5	Design algorithms for branch and bound and backtracking technique.	K6

Course					I	Program	Outcom	ies					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C213.1	3	3	3	-	-	-	-	-	1	2	1	2	1	1	1	
C213.2	3	3	2	-	-	-	-	-	1	2	-	1	1	1	1	
C213.3	3	2	3	-	-	-	-	-	1	2	-	1	1	1	1	
C213.4	3	2	3	-	-	-	-	-	1	2	-	1	1	1	1	
C213.5	3	3	3	-	-	-	-	-	1	2	1	1	1	1	1	

C213 (Average) 3 2.6 2.8 1	2 - 1.2 1 1 1
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COURSE CODE	214	
Subject Code	CS8493	Year of Study :2020-2021
Subject Name	Operating Systems	Semester: 04
Course	Course Outcomes	Knowledge
Outcomes No.	Course Succession	Level
C214.1	Understand the basic concepts and functions of operating systems.	K2
C214.2	Understand processes and threads Analyze various scheduling algorithms and concept of deadlock	K2
C214.3	Compare and contrast various memory management schemes.	K2
C214.4	Understand the functionality of file systems	K2
C214.5	Perform administrative tasks on Linux Servers and compare iOS and Android operating systems.	K6

Course					P	rogram	Outcom	ies					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C214.1	-	-	-	1	1	1	-	-	-	1	1	1	-	2	-	
C214.2	1	1	2	1	1	1	-	-	-	1	1	1	2	2	-	
C214.3	1	1	2	1	1	1	-	-	-	1	1	1	2	2	-	
C214.4	1	1	2	1	1	1	-	-	-	1	1	1	-	2	-	

C214.5	1	1	2	1	1	1	-	-	-	1	1	1		2	2
C214 (Average)	1	1	2	1	1	1	-	-	-	1	1	1	2	2	2

COURSE CODE	215	
Subject Code	CS8494	Year of Study :2020-2021
Subject Name	Software Engineering	Semester: 04
Course Outcomes No.	Course Outcomes	Knowledge Level
C215.1	Students will be able to ccompare different process models.	K2
C215.2	Students have gained knowledge about the concepts of requirements engineering and Analysis Modelling.	K1
C215.3	Students will be able to apply systematic procedure for software design and deployment	K3
C215.4	The students will be able to compare and contrast the various testing and maintenance	K2
C215.5	Students will be able to identify the key activities in managing a software project.	K1

Course					Pr	ogram	Outcom	ies					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C215.1	3	2	3	3	3	3	1	-	1	1	1	1	2	3	1	
C215.2	3	2	3	3	3	3	1	1	1	1	1	1	2	3	1	
C215.3	3	2	3	3	3	3	2	-	1	1	1	1	2	3	1	
C215.4	3	2	3	3	3	3	2	1	1	1	1	1	2	3	1	

C215.5	3	2	3	3	3	3	3	1	3	1	1	1	2	3	1
C215 (Average)	3	2	3	3	3	3	1.8	1	1.4	1	1	1	2	3	1

COURSE CODE	216	
Subject Code	CS8481	Year of Study :2020- 2021
Subject Name	Database Management Systems Laboratory	Semester: 04
Course Outcomes No.	Course Outcomes	Knowledge Level
216.1	Use typical data definitions and manipulation commands.	K6
216.2	Design applications to test Nested and Join Queries.	K6
216.3	Implement simple applications that use Views.	K6
216.4	Implement applications that require a Front-end Tool.	K6
216.5	Critically analyze the use of Tables, Views, Functions and Procedures	K6

Course					I	Program	Outcon	ies					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C216.1	2	2	1	1	1	1	-	1	1	1	1	1	2	2	1	
C216.2	2	2	1	1	1	1	-	1	1	1	1	1	2	2	1	
C216.3	2	2	1	1	1	1	-	1	1	1	1	1	2	2	1	
C216.4	2	2	1	1	1	1	-	1	1	1	1	1	2	2	1	

C216.5	2	2	1	1	1	1	-	1	1	1	1	1	2	2	1
C216 (Average)	2	2	1	1	1	1	-	1	1	1	1	1	2	2	1

COURSE CODE	217	
Subject Code	CS8461	Year of Study :2020-2021
Subject Name	Operating Systems Laboratory	Semester: 04
Course Outcomes No.	Course Outcomes	Knowledge Level
C217.1	Understand the basic concepts and functions of operating systems.	K2
C217.2	Understand processes and threads Analyze various scheduling algorithms and concept of deadlock.	K2
C217.3	Compare and contrast various memory management schemes.	K2
C217.4	Understand the functionality of file systems.	K2
C217.5	Perform administrative tasks on Linux Servers and compare iOS and Android operating systems.	K6

Course					P	rogram	Outcom	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C217.1	1	1	1	1	1	1	-	1	-	1	1	1	1	2	1
C217.2	1	1	2	1	1	1	-	1	-	1	1	1	2	2	1

C217.3	1	1	2	1	1	1	-	1	-	1	1	1	2	2	1
C217.4	1	1	2	1	1	1	-	1	-	1	1	1	1	2	1
C217.5	1	1	2	1	1	1	-	1	-	1	1	1	1	2	2
C217 (Average)	1	1	1.8	1	1	1	1	1	-	1	1	1	1.4	2	1.2

COURSE CODE	218	
Subject Code	HS8461	Year of Study :2020-2021
Subject Name	Advanced Reading And Writing	Semester: 04
Course Outcomes No.	Course Outcomes	Knowledge Level
C218.1	Write different types of essays.	K4
C218.2	Write winning job applications.	K4
C218.3	Read and evaluate texts critically	K2
C218.4	Display critical thinking in various professional contexts.	K4
C218.5	To display critical reading, thinking and to write in various professional context	K4

Course													PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C218.1	-	-	-	-	-	-	-	-	2	2	2	2	-	-	-	
C218.2	-	-	-	2	-	1	-	-	2	2	2	2	-	-	-	
C218.3	-	-	-	-	-	-	-	-	2	3	2	2	-	-	-	

C218.4	-	-	-	-	-	-	-	-	2	3	3	2	-	-	-
C218.5	-	-	-	-	-	-	-	-	3	3	3	2	-	-	-
C218 (Average)	-	-	-	2	-	-	-	-	2.2	2.6	2.4	2	-	-	-

### III Year/V Semester

# **Odd Semester (2021-2022)**

COURSE CODE	301	
Subject Code	MA8551	Year of Study :2021-2022
Subject Name	Algebra And Number Theory	Semester: 05
Course Outcomes No.	Course Outcomes	Knowledge Level
C301.1	Apply the basic notions of groups, rings, fields which will then be used to solve related problems.	K3
C301.2	Explain the fundamental concepts of advanced algebra and their role in modern mathematics and applied contexts	K5
C301.3	Demonstrate accurate and efficient use of advanced algebraic techniques.	K2
C301.4	Demonstrate their mastery by solving non - trivial problems related to the concepts, and by proving simple theorems about the, statements proven by the text	K3
C301.5	Apply integrated approach to number theory and abstract algebra, and provide a firm basis for further reading and study in the subject	K3

Course Outcomes					P	rogram	Outcom	es					PSOs		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C301.1	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-

C301.2	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C301.3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C301.4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C301.5	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C301 (Average)	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-

COURSE CODE	302	
Subject Code	CS8591	Year of Study :2021-2022
Subject Name	Computer Networks	Semester: 05
Course Outcomes No.	Course Outcomes	Knowledge Level
C302.1	Understand the basic layers and its functions in computer networks.	K1
C302.2	Evaluate the performance of a network.	K5
C302.3	Understand the basics of how data flows from one node to another.	K2
C302.4	Analyze and design routing algorithms.	K5
C302.5	Design protocols for various functions in the network.	K6

Course					P	rogram	Outcom	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3

C302.1	3	3	3	-	-	-	-	-	-	-	-	-	2	2	1
C302.2	3	2	3	-	-	-	-	-	-	-	-	-	2	2	2
C302.3	3	3	3	-	-	-	-	-	-	-	-	-	3	3	2
C302.4	3	3	2	-	-	-	-	-	-	-	-	-	2	2	1
C302.5	2	3	2	-	-	-	-	-	-	-	-	-	2	3	2
C302 (Average)	2.8	2.8	2.6	-	-	•	•	-	-	-	•	-	2.2	2.4	1.6

COURSE CODE	303	
Subject Code	EC8691	Year of Study :2021-2022
Subject Name	Microprocessor And Microcontroller	Semester: 05
Course Outcomes No.	Course Outcomes	Knowledge Level
C303.1	Understand and execute programs based on 8086 microprocessor	K6
C303.2	Design Memory Interfacing circuits.	K6
C303.3	Design and interface I/O circuits.	K6
C303.4	Design and implement 8051 microcontroller based systems.	K6
C303.5	Design interfacing microcontroller	K6

Course					P	rogram	Outcom	es						PSOs	
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C303.1	1	1	1	1	-	-	1	-	-	-	-	-	3	1	3

C303.2	3	1	1	1	-	-	1	-	-	-	-	-	3	1	3
C303.3	3	2	1	2	1	-	1	-	-	1	1	-	2	1	3
C303.4	3	2	1	2	-	-	1	-	-	-	-	-	3	1	3
C303.5	3	1	-	1	-	-	-	-	-	-	-	-	3	1	3
C303 (Average)	2.6	1.4	1	1.4	-	-	1	-	-	-	-	-	2.8	1	3

COURSE CODE	304	
Subject Code	CS8501	Year of Study :2021-2022
Subject Name	Theory Of Computation	Semester: 05
Course Outcomes No.	Course Outcomes	Knowledge Level
o decomes 1 (or		20,61
C304.1	Illustrate the finite state machine and regular expression.	K4
C304.2	Explain the types of grammar.	K1
C304.3	Construct the push down automata for the language.	K6
C304.4	Outline the concept of Turing machine.	K2
C304.5	Demonstrate the decidability and un-decidability of various	K6

Course Outcomes						Progra	m Outo	comes						PSO	Os
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3

C304.1	3	-	2	2	-	1	-	-	-	-	3	1	3	-	2
C304.2	-	3	2	2	-	1	-	-	-	-	-	1	-	3	3
C304.3	-	-	2	2	-	1	-	-	-	1	-	1	2	-	2
C304.4	-	1	-	2	-	1	-	-	1	2	-	1	3	1	-
C304.5	-	-	-	2	-	1	-	-	-	-	3	1	-	-	-
C304 (Average)	3	2	2	2	-	1	-	-	1	2	3	1	3	2	2

COURSE CODE	305			
Subject Code	CS8592	Year of Study :2021-2022		
Subject Name	Object Oriented Analysis And Design	Semester: 05		
Course Outcomes No.	Course Outcomes	Knowledge Level		
C305.1	Express software design with UML diagrams	K6		
C305.2	Design software applications using OO concepts	K3		
C305.3	Identify various scenarios based on software requirements	K3		
C305.4	Transform UML based software design into pattern based design using design patterns	K6		
C305.5	Understand the various testing methodologies for OO software	K2		

Course Outcomes	Program Outcomes	PSOs
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	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C305.1	3	3	-	-	3	2	1	-	-	-	3	2	1	2	2
C305.2	2	2	2	2	3	2	1	-	-	-	3	2	1	3	2
C305.3	2	2	-	-	3	2	1	-	1	1	-	2	1	3	2
C305.4	2	2	2	2	3	2	1	-	-	-	3	2	1	3	2
C305.5	2	2	2	2	3	2	1	-	-	-	3	2	1	3	2
C305 (Average)	2.2	2.2	2	2	3	2	1	-	1	1	3	2	1	2.8	2

COURSE CODE	306	
Subject Code	ESG612	Year of Study :2021-2022
Subject Name	Geographic Information System	Semester: 05
Course	Course Outcomes	Knowledge
Outcomes No.	Course Outcomes	Level
C306.1	Have basic idea about the fundamentals of GIS.	K2
C306.2	Understand the types of data models.	K1
C306.3	Get knowledge about data input and topology	K6
C306.4	Gain knowledge on data quality and standards.	K2
C306.5	Explain the difference between simulator and Emulator	K5

Cour Outco	Program outcomes
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	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C306.1	2	1	1	-	-	-	-	-	-	-	-	-	1	1	-
C306.2	3	2	2	-	-	-	-	-	-	-	2	-	1	1	-
C306.3	3	2	2	-	-	-	-	-	-	-	2	-	3	3	-
C306.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C306.5	3	2	2	-	-	-	-	-	-	-	-	-	2	2	-
C306 (Average)	2.6	1.6	1.6	-	-	-	-	-	-	-	2	-	1.8	1.8	-

COURSE CODE	307	
Subject Code	EC8681	Year of Study :2021-2022
Subject Name	Microprocessor And Microcontroller Laboratory	Semester: 05
Course Outcomes No.	Course Outcomes	Knowledge Level
C307.1	Students have the ability to Write ALP Programmes for fixed and Floating Point and Arithmetic operations.	K6
C307.2	Students are able to Interface different I/Os with processor	K2
C307.2	Students are able to interface different i/Os with processor	KΔ
C307.3	Students are able to merrate waveforms using Microprocessors.  Students are able to generate waveforms using Microprocessors.	K6

Course					P	rogram	Outcom	es						PSOs	
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C307.1	3	3	3	-	3	-	-	2	2	-	-	2	1	-	1
C307.2	3	3	3	-	3	-	-	2	2	-	-	2	1	-	1
C307.3	3	3	3	-	3	-	-	2	2	-	-	2	1	-	1
C307.4	3	3	3	-	3	-	-	2	2	-	-	2	1	-	1
C307.5	3	3	3	-	3	-	-	2	2	-	-	2	1	-	1
C307 (Average)	3	3	3	-	3	-	-	2	2	-	-	2	1	-	1

COURSE CODE	308	
Subject Code	CS8582	Year of Study :2021-2022
Subject Name	Object Oriented Analysis And Design Laboratory	Semester: 05
Course Outcomes No.	Course Outcomes	Knowledge Level
C308.1	Design and implement projects using OO concepts	K6
C308.2	Use the UML analysis and design diagrams.	K6
C308.3	Apply appropriate design patterns	К3
C308.4	Create code from design.	K6
C308.5	Compare and contrast various testing techniques.	K2

Course					P	rogram	Outcom	es						PSOs	
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C308.1	3	2	3	-	1	2	1	2	-	-	3	2	3	2	2
C308.2	3	2	3	2	1	2	1	2	-	-	3	2	3	2	2
C308.3	3	2	3	-	1	2	1	2	1	1	-	2	3	2	2
C308.4	3	2	3	2	1	2	1	2	-	-	3	2	3	2	2
C308.5	3	2	3	2	1	2	1	2	-	-	3	2	3	2	2
C308 (Average)	3	2	3	2	1	2	1	2	1	1	3	2	3	2	2

COURSE CODE	309	
Subject Code	CS8581	Year of Study :2021-2022
Subject Name	Networks Laboratory	Semester: 05
Course Outcomes No.	Course Outcomes	Knowledge Level
C309.1	Implement various protocols using TCP and UDP.	K3
C309.2	Compare the performance of different transport layer protocols.	K2
C309.3	Use simulation tools to analyze the performance of various network protocols	K6
C309.4	Analyze various routing algorithms.	K4
C309.5	Implement error correction codes.	К3

Course Outcomes	Program Outcomes	PSOs
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	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C309.1	3	2	3	-	1	2	1	2	-	-	3	2	3	2	2
C309.2	3	2	3	2	1	2	1	2	-	-	3	2	3	2	2
C309.3	3	2	3	-	1	2	1	2	1	1	-	2	3	2	2
C309.4	3	2	3	2	1	2	1	2	-	-	3	2	3	2	2
C309.5	3	2	3	2	1	2	1	2	-	-	3	2	3	2	2
C309 (Average)	3	2	3	2	1	2	1	2	1	1	3	2	3	2	2

### III Year/VI Semester

# **2021-2022(Even Semester)**

COURSE CODE	310	
Subject Code	CS8651	Year of Study :2021-2022
Subject Name	Internet Programming	Semester: 06
Course Outcomes No.	Course Outcomes	Knowledge Level
Outcomes 110.		Level
C310.1	The student should be able to implement Java Programs.	К3
C310.2	The student should be able to create a basic website using HTML and Cascading Style Sheets.	K6
C310.3	The student should be able to design and implement dynamic web page with validation using JavaScript objects and by applying different event handling mechanisms.	К3
C310.4	The student should be able to design and Implement simple web page in PHP, and to present data in XML format.	К3
C310.5	The student should be able to design and Implement server side programs using Servlets and JSP.	К3

Course					P	rogram	Outcom	es						PSOs	
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C310.1	3	2	3	1	1	-	-	-	1	1	1	1	3	3	3
C310.2	3	2	3	1	1	-	-	-	1	1	1	1	3	3	3
C310.3	3	2	3	1	1	-	-	-	1	1	1	1	1	3	3
C310.4	3	2	3	1	1	-	-	-	1	1	1	1	2	2	3
C310.5	3	2	3	1	1	-	-	-	1	1	1	1	2	2	3
C310 (Average)	3	2	3	1	1	-	-	-	1	1	1	1	2.2	2.6	3

COURSE CODE	311	
Subject Code	CS8691	Year of Study :2021-2022
Subject Name	Artificial Intelligence	Semester: 06
Course Outcomes No.	Course Outcomes	Knowledge Level
C311.1	Use appropriate search algorithms for any AI problem	K3
C311.1 C311.2	Use appropriate search algorithms for any AI problem  Represent a problem using first order and predicate logic.	K3 K3

C311.4	Design software agents to solve a problem	K6
C311.5	Design applications for NLP that use Artificial Intelligence	K6

Course					P	rogram	Outcom	es					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C311.1	2	2	2	1	2	2	1	-	2	2	1	2	1	2	3	
C311.2	1	1	2	1	1	1	1	-	1	2	1	2	1	2	2	
C311.3	1	1	2	1	1	1	1	-	2	2	1	2	1	2	3	
C311.4	1	1	2	1	1	2	1	-	2	2	1	2	1	2	3	
C311.5	1	1	1	2	1	1	1	-	1	2	1	2	1	2	3	
C311 (Average)	1.2	1.2	1.8	1.2	1.2	1.4	1	-	1.6	2	1	2	1	2	2.8	

COURSE CODE	312	
Subject Code	CS8601	Year of Study :2021-2022
Subject Name	Mobile Computing	Semester: 06
Course Outcomes No.	Course Outcomes	Knowledge Level
C312.1	Explain the basics of mobile telecommunication systems	K1
C312.2	Illustrate the generations of telecommunication systems in wireless networks	К3
C312.3	Determine the functionality of MAC network layer and identify routing protocol for a given Ad-hoc network	К3
C312.4	Explain the functionality of Transport and Application layers	K1

C312.5

Course Outcomes					I	Program	Outcon	nes					PSOs			
outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C312.1	2	2	2	-	2	2	1	-	-	-	1	2	1	2	3	
C312.2	1	1	2	-	1	1	1	-	-	-	1	2	1	2	2	
C312.3	1	1	2	-	1	1	1	-	-	-	1	2	1	2	3	
C312.4	1	1	2	-	1	2	1	-	-	-	1	2	1	2	3	
C312.5	1	1	1	-	1	1	1	-	-	-	1	2	1	2	3	
C312 (Average)	1.2	1.2	1.8	-	1.2	1.4	1	-	-	-	1	2	1	2	2.8	

COURSE CODE	313	
Subject Code	CS8602	Year of Study :2021-2022
Subject Name	Compiler Design	Semester: 06
Course	Course Outcomes	Knowledge
Outcomes No.	Course Outcomes	Level
	Design a lexical analyzer for a sample language.	<b>Level</b> K6

C313.3	Understand syntax-directed translation and run-time environment.	K2
C313.4	Learn to implement code optimization techniques and a simple code generator	К3
C313.5	Design and implement a scanner and a parser using LEX and YACC tools.	K6

Course						Progra	m Out	comes						PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
C313.1	3	-	2	-	-	-	-	-	-	-	3	1	2	2	-		
C313.2	3	1	2	1	-	1	-	-	-	-	-	1	-	2	2		
C313.3	-	1	2	1	-	-	-	-	-	1	-	1	2	-	2		
C313.4	3	-	-	-	-	-	-	-	1	2	-	1	-	2	2		
C313.5	3	1	2	1	-	1	-	-	-	-	3	1	2	2	-		
C313 (Average)	3	1	2	1	-	1	-	-	1	1.5	3	1	2	2	2		

COURSE CODE	314	
Subject Code	CS8603	Year of Study :2021-2022
Subject Name	Distributed Systems	Semester : 06
Course Outcomes No.	Course Outcomes	Knowledge Level
C314.1	Elucidate the foundations and issues of distributed systems	K1
C314.2	Understand the various synchronization issues and global state for distributed systems.	K2

C314.3	Understand the Mutual Exclusion and Deadlock detection algorithms in distributed systems	K2
C314.4	Describe the agreement protocols and fault tolerance mechanisms in distributed systems.	K1
C314.5	Describe the features of peer-to-peer and distributed shared memory systems	K1

Course					Pro	gram Oı	utcomes						PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C314.1	2	1	2	1	1	2	-	-	2	2	-	1	2	2	2	
C314.2	2	2	3	1	1	2	-	-	3	2	-	1	2	2	3	
C314.3	2	2	2	1	1	1	-	-	1	2	-	1	2	2	2	
C314.4	2	1	2	2	1	1	-	-	2	2	-	1	2	2	2	
C314.5	2	2	2	2	1	1	-	-	2	2	-	1	2	2	2	
C314 (Average)	2	2	2	1	1	1	-	-	2	2	-	1	2	2	2	

COURSE CODE	315	
Subject Code	IT8076	Year of Study :2021-2022
Subject Name	Software Testing	Semester : 06
Course Outcomes No.	Course Outcomes	Knowledge Level

C315.1	Design test cases suitable for a software development for different domains.	K6
C315.2	Identify suitable tests to be carried out.	K1
C315.3	Prepare test planning based on the document.	K4
C315.4	Document test plans and test cases designed.	K6
C315.5	Use of automatic testing tools.	К3

Course Outcomes					P	rogram	Outcom	es					PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C315.1	3	3	-	-	3	2	1	1	-	-	3	2	1	3	2	
C315.2	2	2	2	2	3	2	1	1	-	-	3	2	1	3	2	
C315.3	2	2	-	-	3	2	1	-	1	1	-	2	1	3	2	
C315.4	2	2	2	2	3	2	1	1	-	-	3	2	1	3	2	
C315.5	2	2	2	2	3	2	1	1	-	-	3	2	1	3	2	
C315 (Average)	2.2	2.2	2	2	3	2	1	1	1	1	3	2	1	3	2	

COURSE CODE	316	
Subject Code	CS8661	Year of Study :2021-2022
Subject Name	Internet Programming Laboratory	Semester: 06

Course Outcomes No.	Course Outcomes	Knowledge Level
C316.1	Construct Web pages using HTML/XML and style sheets.	K6
C316.2	Build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.	K6
C316.3	Develop dynamic web pages using server side scripting.	K6
C316.4	Use PHP programming to develop web applications	К3
C316.5	Construct web applications using AJAX and web services.	K6

Course					P	rogram	Outcom	es					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C316.1	3	3	3	ı	-	-	-	3	3	2	-	2	3	2	2	
C316.2	3	3	3	-	-	-	-	3	3	2	-	2	3	2	2	
C316.3	3	3	3	1	-	-	-	3	3	2	-	2	3	2	2	
C316.4	3	3	3	ı	-	-	-	3	3	2	-	2	3	2	2	
C316.5	3	3	3	-	-	-	-	3	3	2	-	2	3	2	2	
C316 (Average)	3	3	3	-	-	-	-	3	3	2	-	2	3	2	2	

COURSE CODE	317	
Subject Code	CS8662	Year of Study :2021-2022
Subject Name	Mobile Application Development Laboratory	Semester: 06
Course Outcomes No.	Course Outcomes	Knowledge Level

C317.1	Develop mobile applications using GUI and Layouts.	K6
C317.2	Develop mobile applications using Event Listener.	K6
C317.3	Develop mobile applications using Databases.	K6
C317.4	Develop mobile applications using RSS Feed, Internal/External Storage, SMS, Multi-threading and GPS.	K6
C317.5	Analyze and discover own mobile app for simple needs.	K4

Course Outcomes					P	rogram	Outcom	es					PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C317.1	3	2	3	1	1	-	-	-	-	1	-	-	3	3	3	
C317.2	3	2	3	1	1	-	-	-	-	1	-	-	3	3	3	
C317.3	3	2	3	1	1	-	-	-	-	1	-	-	3	3	3	
C317.4	3	2	3	1	1	-	-	-	-	1	-	-	3	3	3	
C317.5	3	2	3	1	1	-	-	-	-	1	-	-	3	3	3	
C317 (Average)	3	2	3	1	1	-	-	-	-	1	-	-	3	3	3	

COURSE CODE	318	
Subject Code	HS8581	Year of Study :2021-2022
Subject Name	Professional Communication	Semester: 06
Course Outcomes No.	Course Outcomes	Knowledge Level

C318.1	Make effective presentations	К3
C318.2	Participate confidently in Group Discussions.	K5
C318.3	Attend job interviews and be successful in them.	К3
C318.4	Develop adequate Soft Skills required for the workplace	К3
C318.5	To etiquette time management career management and required soft skills in the workspace	К3

Course Outcomes					Pr	ogram O	utcomes						PSOs			
course outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C318.1	-	-	-	-	-	-	-	-	3	3	2	2	-	-	-	
C318.2	-	-	-	-	-	-	-	-	2	3	3	3	-	-	-	
C318.3	-	-	-	-	-	-	-	-	3	3	2	2	-	-	-	
C318.4	-	-	-	-	-	-	-	-	3	3	2	2	-	-	-	
C318.5	-	-	-	-	-	-	-	-	3	3	3	2	-	-	-	
C318 (Average)	-	-	-	-	-	-	-	-	2.8	3	2.4	2.2	-	-	-	

COURSE CODE	319	
Subject Code	CS8611	Year of Study :2021-2022
Subject Name	Mini Project	Semester: 06
Course Outcomes No.	Course Outcomes	Knowledge Level

C319.1	Identify the problem by applying acquired technical knowledge.	K4
C319.2	Analyse and categorize executable project modules after considering risks.	К3
C319.3	Design engineering solutions to complex problems utilising a systems approach.	K4
C319.4	Implement, test and deploy the solution through effective team work after efficient testing.	K2
C319.5	Demonstrate the knowledge, skills and attitudes of a professional engineer.	K2

Course					P	rogram	Outcom	es					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C319.1	3	2	2	1	-	2	2	2	2	2	2	1	1	1	1	
C319.2	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	
C319.3	3	3	3	2	2	2	2	2	2	2	2	1	2	2	2	
C319.4	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	
C319.5	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	
C319 (Average)	3	2.8	2.8	2.4	2	2	2	2	2	2	2	1	1.8	1.8	1.8	

### III Year/VII Semester

# **2022-2023(Odd Semester)**

COURSE CODE	401	
Subject Code	MG8591	Year of Study :2022-2023
Subject Name	Principles Of Management	Semester: 07
Course Outcomes No.	Course Outcomes	Knowledge Level
C401.1	Outlines the evolution of Management concepts.	K1
C401.2	Apply the functions and principles of planning process in management.	К3
C401.3	Apply the different principles of organizing process in management.	К3
C401.4	Understand the functions and principles of directing process in management.	K2
C401.5	Understand the principles of controlling process in management.	K2

Course					P	rogram	Outcom	es					PSOs				
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
C401.1	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2		
C401.2	-	-	2	-	-	1	-	-	-	-	3	-	-	-	2		
C401.3	-	-	2	-	-	1	-	-	-	-	2	-	-	-	2		
C401.4	-	-	2	-	-	2	-	2	2	2	2	-	-	-	2		
C401.5	-	-	2	-	-	1	-	3	2	-	2	-	-	-	2		
C401 (Average)	-	-	2	-	-	1	-	2	2	2	2	-	-	-	2		

COURSE CODE	402	
Subject Code	CS8792	Year of Study :2022-2023
Subject Name	Cryptography And Network Security	Semester: 07
Course Outcomes No.	Course Outcomes	Knowledge Level
C402.1	Understand various security trends and Cryptographic Techniques	K2
C402.2	Interpret the functionalities of public key encryption and number theory concepts.	K4
C402.3	Analyze the functions of authentication techniques and hashing.	К3
C402.4	Learn network security tools and authentication applications.	K1
C402.5	Understand the concepts of system level security, intruders and firewall standards.	K2

Course					P	rogram	Outcom	ies						PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
C402.1	3	-	2	-	-	-	-	-	-	-	-	-	2	-	3		
C402.2	3	-	2	-	-	-	-	-	-	-	-	-	2	1	3		
C402.3	3	2	-	-	-	-	-	-	-	-	-	-	-	1	3		
C402.4	-	-	2	-	-	-	-	-	-	-	-	-	2	-	3		
C402.5	3	-	2	-	-	-	-	-	-	-	-	-	2	1	2		
C402 (Average)	3	2	2	-	-	-	-	•	-	-	-	-	2	1	3		

	COURSE CODE	403
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Subject Code Subject Name	CS8791 Cloud Computing	Year of Study :2022- 2023 Semester : 07
Course Outcomes No.	Course Outcomes	Knowledge Level
C403.1	Articulate the main concepts, key technologies, strengths and limitations of cloud computing.	K4
C403.2	Learn the key and enabling technologies that help in the development of cloud.	K1
C403.3	Develop the ability to understand and use the architecture of compute and storage cloud, service and delivery models	К3
C403.4	Be able to install and use current cloud technologies.	K6
C403.5	Evaluate and choose the appropriate technologies, algorithms and approaches for implementation and use of cloud	K5

Course					P	rogram	Outcom	nes						PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
C403.1	3	3	1	-	-	1	-	1	-	-	1	-	2	2	2		
C403.2	2	3	-	1	-	1	-	1	-	-	1	-	2	-	2		
C403.3	3	2	1	2	1	1	-	1	-	-	1	-	2	2	2		
C403.4	1	3	-	1	-	1	-	1	-	-	1	-	-	1	1		
C403.5	3	2	1	1	1	1	-	1	-	-	1	-	1	2	1		
C403 (Average)	2.4	2.6	1	1.25	1	1	-	1	-	-	1	-	1.75	1.75	1.6		

COURSE CODE	404	
Subject Code	OCE751	Year of Study :2022-2023
Subject Name	Environmental And Social Impact Assessment	Semester: 07
Course Outcomes No.	Course Outcomes	Knowledge Level
C404.1	Carry out scoping and screening of developmental projects for environmental and social assessments	K2
C404.2	Explain different methodologies for environmental impact prediction and assessment.	K2
C404.3	Plan environmental impact assessments and environmental management plans	K4
C404.4	Evaluate environmental impact assessment reports	K4
C404.5	Identify the Socio economic assessment	K1

Course					I	Program	Outcon	ies						PSOs	
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C404.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C404.2	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C404.3	3	1	1	-	-	-	-	-	-	-	-	-	2	3	-
C404.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-
C404.5	3	1	1	-	-	-	-	-	-	-	-	-	2	3	-
C404 (Average)	2.4	1	1	-	-	-	-	-	-	-	-	-	2	2.4	-

COURSE CODE	405	
Subject Code	CS8079	Year of Study :2022-2023
Subject Name	Human Computer Interaction	Semester: 07
Course Outcomes No.	Course Outcomes	Knowledge Level
C405.1	Design effective dialog for HCI	K6
C405.2	Design effective HCI for individuals and persons with disabilities	K6
C405.3	Assess the importance of user feedback.	K4
C405.4	Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.	K1
C405.5	Develop meaningful user interface	K2

Course					Pr	ogram (	Outcom	es						PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C405.1	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-	
C405.2	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-	
C405.3	3	1	1	-	-	-	-	-	-	-	-	-	2	3	-	
C405.4	2	1	1	-	-	-	-	-	-	-	-	-	2	2	-	
C405.5	3	1	1	-	-	-	-	-	-	-	-	-	2	3	-	
C405 (Average)	2.4	1	1	-	-	-	-	-	-	-	-	-	2	2.4	-	

COURSE CODE	406	
Subject Code	CS8711	Year of Study :2022-2023
Subject Name	Cloud Computing Laboratory	Semester: 07
Course Outcomes No.	Course Outcomes	Knowledge Level
C406.1	Configure various virtualization tools such as Virtual Box, VMware	K4
C406.2	Design and deploy a web application in a PaaS environment	K6
C406.3	Learn how to simulate a cloud environment to implement new schedulers	K1
C406.4	Install and use a generic cloud environment that can be used as a private cloud.	K5
C406.5	Manipulate large data sets in a parallel environment	K6

Course					P	rogram	Outcom	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C406.1	3	3	1	-	-	1	-	1	-	-	1	-	2	2	2
C406.2	2	3	-	1	-	1	-	1	-	-	1	-	2	-	2
C406.3	3	2	1	2	1	1	-	1	-	-	1	-	2	2	2
C406.4	1	3	_	1	-	1	-	1	-	-	1	-	-	1	1
C406.5	3	2	1	1	1	1	-	1	-	-	1	-	1	2	1
C406 (Average)	2.4	2.6	1	1.25	1	1	-	1	-	-	1	-	1.75	1.75	1.6

COURSE CODE	407	
Subject Code	IT8761	Year of Study :2022-2023
Subject Name	Security Laboratory	Semester: 07
Course Outcomes No.	Course Outcomes	Knowledge Level
C407.1	Develop programs in classical cipher techniques.	К3
C407.2	Create a design of modern cipher algorithms.	K6
C407.3	Gain knowledge about network security tools.	K1
C407.4	Install root kits for security.	K6
C407.5	Demonstrate the network security system using open source tools	К3

Course					P	rogram	Outcom	es					PSOs			
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C407.1	3	2	1	1	2	1	-	1	-	-	1	-	1	2	1	
C407.2	3	2	1	1	2	1	-	1	-	-	1	-	1	2	1	
C407.3	3	2	1	1	2	1	-	1	-	-	1	-	1	2	1	
C407.4	3	2	1	1	2	1	-	1	-	-	1	-	1	2	1	
C407.5	3	2	1	1	2	1	-	1	-	-	1	-	1	2	1	
C407 (Average)	3	2	1	1	2	1	-	1	-	-	1	-	1	2	1	

# IV Year/VIII Semester

# **2022-2023(Even Sesmster)**

COURSE CODE	408	
Subject Code	GE8076	Year of Study :2022-2023
Subject Name	Professional Ethics In Engineering	Semester: 08
Course Outcomes No.	Course Outcomes	Knowledge Level
C408.1	Students understand the core values that shape the ethical behaviour of an engineer and Exposed awareness on professional ethics and human values.	K2
C408.2	The students will understand the basic perception of profession, professional ethics, various moral issues & uses of ethical theories	K2
C408.3	The students will understand various social issues, industrial standards, code of ethics and role of professional ethics in engineering field.	K2
C408.4	The students will be aware of responsibilities of an engineer for safety and risk benefit analysis, professional rights and responsibilities of an engineer.	K2
C408.5	The students will acquire knowledge about various roles of engineers in variety of global issues and able to apply ethical principles to resolve situations that arise in their professional lives	К3

Course Outcomes						Pr	ogram O	utcomes					PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
C408.1	1	-	-	-	-	1	1	3	1	2	-	-	-	-	-	
C408.2	-	-	-	-	-	1	1	3	1	2	-	-	2	-	-	
C408.3	2	-	-	-	-	3	2	3	-	1	-	-	2	-	-	
C408.4	-	-	-	-	1	3	2	1	-	-	-	-	-	-	-	
C408.5	1	-	-	-	-	3	2	1	-	1	3	-	-	-	2	
C408 (Average)	1.5	-	-	-	-	2.2	1.6	2.2	1	1.5	3	-	2	-	2	

COURSE CODE	409	
Subject Code	CS8078	Year of Study : 2022-2023
Subject Name	Green Computing	Semester: 08
Course Outcomes No.	Course Outcomes	Knowledge Level
C409.1	Acquire knowledge to adopt green computing practices to minimize negative impacts on the environment.	К3
C409.2	Enhance the skill in energy saving practices in their use of hardware.	K2
C409.3	Evaluate technology tools that can reduce paper waste and carbon footprint by the stakeholders.	К3
C409.4	Understand the ways to minimize equipment disposal requirements	К3
C409.5	Acquire knowledge to apply green strategies	K1

Course					P	rogram	Outcom	es					PSOs		
Outcomes	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C409.1	3	2	3	-	-	-	1	-	-	-	1	-	2	2	3
C409.2	2	2	3	-	-	-	1	-	-	-	1	-	2	2	3
C409.3	3	1	2	-	-	-	1	-	-	-	1	-	2	2	2
C409.4	3	2	2	-	-	-	1	-	-	-	1	-	2	2	3
C409.5	3	1	2	-	-	-	1	-	-	-	1	-	2	2	2
C409 (Average)	2.8	1.6	2.4	-	-	-	1	-	-	-	1	-	2	2	2.6

COURSE CODE	410	
Subject Code	CS8811	Year of Study :2022-2023
Subject Name	Project Work	Semester: 08
Course Outcomes No.	Course Outcomes	Knowledge Level
C410.1	Identify the problem by applying acquired technical knowledge.	K1
C410.2	Analyze and categorize executable project modules after considering risks.	К3
C410.3	Design engineering solutions to complex problems utilising a systems approach.	K4
C410.4	Implement, test and deploy the solution through effective team work after efficient testing.	K4
C410.5	Demonstrate the knowledge, skills and attitudes of a professional engineer.	K6

Course Outcomes					F	Program	Outcome	es					PSOs		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C410.1	3	2	2	1	-	2	2	2	2	2	2	1	1	1	1
C410.2	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2
C410.3	3	3	3	2	2	2	2	2	2	2	2	1	2	2	2
C410.4	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2
C410.5	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2
C410 (Average)	3	2.8	2.8	2.4	2	2	2	2	2	2	2	1	1.8	1.8	1.8