Programme Educational Objectives

Within 3-5 years of education, graduates of MCA programme of CSIBER institute will be able to:

- PEO 1: Design and develop quality software using emerging technologies as per industry standards
- PEO 2: Exhibit life long learning capabilities with concern to drastic changes in emerging technologies.
- PEO 3: Exhibit successful professional career by providing software solutions for complex problems in a time-bound manner.
- PEO 4: Adopt themselves to the constantly evolving technology by peer reviewing, by working collaboratively and developing expertise in emerging fields.

MSc (CS) Programme Specific Outcomes

- PSO1. Demonstrate knowledge about computer science concepts and solutions effectively and professionally
- PSO2. Use and application of computing knowledge to produce effective designs and solutions for problem under consideration.
- PSO3. Use of modern software development tools, systems, and platforms effectively and efficiently.
- PSO1. Demonstrate knowledge about computer science concepts and solutions effectively and professionally
- PSO2. Use and application of computing knowledge to produce effective designs and solutions for problem under consideration.
- PSO3. Use of modern software development tools, systems, and platforms effectively and efficiently.

MSc (CS) Programme Outcomes (PO)

- > PO1 : Provide Sound theoretical knowledge to understand computer science concepts.
- PO2 : Analyze the given problem to get clear idea about what should be done and prepare alternatives solutions for the given problem.

- PO3: Design and develop complete solution using computer system to solve the given problem.
- PO4: use modern tools to design and develop the solution and verify and validate the solution.
- PO5 : Develop ability to work in a team as a responsible member and/or leader in a diversified team.
- PO6 : Inculcate lifelong learning ability to learn and understand new methods, techniques and tools for solving complex problems.
- PO7 : Develop research attitude to contribute new concepts, ideas, tools, techniques and methods to the field of computer science.

Semester		Ι	Total Credit	4		
Course Code		CC101	Credit Pattern	L-48, T-12, P-0		
Сот	urse Title	COMPUTER OR	COMPUTER ORGANIZATION AND ARCHITECTURE			
Cou	urse Objectiv	'es				
1	To feature a strong emphasis on the fundamentals underlying digital circuit design					
2	To build prob	olem-solving skills re	equired for digital circu	iit design		
3.	To explore computer design components like Boolean Algebra, Combinational, Sequential Circuit Design, Memory and CPU Organization, Input Output Processing					
Co	course Outcomes: The students will able to					
1.	Build a combinational circuit by simplifying Boolean function using K-map or Boolean Algebra postulates (Applying)					
2.	Demonstrate the building up of Sequential logic from basic gates and flipflops (Understanding)					
3.	Comprehend the design of various functional units of digital computers (Understanding)					
4.	Explain basic structure and functioning of operating system					
5.	Solve problems related to process management and synchronization					
6.	Compare and Contrast different CPU scheduling techniques, memory management techniques					
7.	Demonstrate the cause, effect related to deadlocks.					

Semester		I	Total Credit	4		
Course Code		CC 102	Credit Pattern	L-48, T-12, P-0		
Сог	ırse Title	Software Engineering And Project Management				
Сот	Course Objectives					
1	To learn and understand the principles of Software Engineering.					
2	To Learn and understand Software Development Life Cycle.					
3.	To apply Design and Testing principles to S/W project development.					
4.	To introduce the tasks and concepts in project management.					
5.	To find out various metrics and its usage.					
Сот	Course Outcomes: The students will able to					

1.	Identify and Summarize Software Engineering concepts.
2.	Choose appropriate model for software development.
3.	Construct a model for Software under consideration.
4.	Decide a technique for managing the project.
5.	Solve the problem of the user using Software Engineering Principles.

Se	mester	I	Total Credit	4	
Course Code		AEC101 -A	Credit Pattern	L-48, T-12, P-0	
Course Title		DESIGN AND A	NALYSIS OF ALGORITHM		
Co	ourse Objectives				
1	To provide a solid foundation in algorithm design and analysis.				
2	Become familiar with fundamental data structures and with the manner in which these data structures can best be implemented; become accustomed to the description of algorithms in both functional and procedural styles.				
3	To develop problem solving abilities using mathematical theories.				
4	To apply algorithmic strategies while solving problems. Also expected to understand find out the time complexity of the algorithm.				
5	To study the important algorithmic design paradigms and methods of analysis.				

Co	urse Outcomes: After successful completion of the course, the students would be able to
1.	Learn good principles of algorithm design;
2.	To analyze worst-case running times of algorithms using asymptotic analysis.
3.	Describe the Divide-and-Conquer, Bound and Branch-programming, greedy paradigm and explain when an algorithmic design situation calls for it.
4.	Explain the major graph algorithms and their analyses. Employ graphs to model problems.

Semester	I	Total Credit	4		
Course Code	CC 104	Credit Pattern	L-45, T-8, P-7		
Course Title OBJECT ORIENTED PROGRAMMING WITH C++					
Course Objectives					

1	This subject introduces and explains the concepts like classes, constructors, destructors, inheritance, overloading, polymorphism and stream I/O operation.
2	Chapters have a practical orientation, with example programs in all sections to start practicing what is being explained right away.
Cou	urse Outcomes: The students will able to
1.	To write C++ programs using object oriented language features
2.	Utilize Object Oriented Programming concepts to design C++ programs.
3.	Develop industrial-strength, high-performance computer applications.

Semester	Ι	Total Credit	4		
Course Code	CC 105	Credit Pattern	L-45, T-8, P-7		
Course Title		Web Design and	Development		
Course Objectives					
1	To teach the basic internet concepts and train them to develop internet applications.				
2	Knowledge of the new JavaScript APIs.				
3.	To introduce various tools for web services.				
4	To introduce PHP and MySQL and its usages				
Course Outcom	Course Outcomes: The students will able to				
1.	Design and develop internet applications.				
2.	Do JavaScript APIs.				
3.	Use various tools for web services.				
4.	Design and develop web application using PHP and MySQL				

Semester	Ι	Total Credit	2	
Course Code	AECC-I	Credit Pattern	L-26, T-4	
Course Title	Professional Communication Skills			
Course Objectives				
1	To familiarize learners with the mechanics of communication.			
2	To develop students written expression of thought and build connections between			
	content areas			
3	To develop students oral communication skills by a variety of communication			
	activities, from informal discussion to formal presentation			

Semester	Ш	Total Credit	2		
Course Code	AEC- II	Credit Pattern	L-24, T-6, P-0		
Course Title	Problem Solving and Logical Skills				
Course Objectives					
1 To provide	To provide a solid foundation in algorithm design and analysis.				

2	Become familiar with fundamental data structures and with the manner in which these data structures
	can best be implemented; become accustomed to the description of algorithms in both functional and
	procedural styles.
-	
3	To develop problem solving abilities using mathematical theories.
4	To study different logical strategies and techniques
5	To study the important algorithmic design paradigms and methods of analysis.
Co	ourse Outcomes: After successful completion of the course, the students would be able to
1.	Reflect upon their own capacity for problem-solving.
2.	Apply algorithmic thinking to understand, define and solve problems
3.	Apply logical skills while solving problems.
4.	Demonstrate problem solving logical inference skills

Semester	Ι	Total Credit	2
Course Code	AEC-I	Credit Pattern	L-30, T-00, P-00
Course Title C. Social Ethics			

Coι	urse Objectives
1	To study basic moral ethics of students
2	To check out learners social ethics learnt by students
Coι	irse Outcomes
Afte	er completion of this course the student will be able to:
1	Analyse basic moral and social ethics of lerners
2	Assess social, moral, ethical standards practices of learners

Semester	Ι	Total Credit	2
Course Code	AEC-I	Credit Pattern	L-25, T-05
Course Title	STRESS MANAG	EMENT	

C οι	urse Objectives
1	To understand the scientific foundations, nature and symptoms of stress
2	To assess risk factors of stress
3.	To develop resilience to stress
4	To apply stress management techniques

C οι	urse Outcomes: The students will able to
1.	Comprehend the scientific foundations, nature and symptoms of stress
2.	Discuss risk factors of stress
3.	Develop resilience to stress
4.	Apply stress management techniques

Semester	Ι	Total Credit	4
Course Code	DSE I (A)	Credit Pattern	L-48, T-12, P-0
Course Title	THEORETICAL	COMPUTER SCIEN	CE (TCS)

Cou	ırse Objectives
1	To comprehend languages, grammars, and computation models
2	To learn regular languages and context free languages which are crucial to understand how compilers and programming languages are built
3.	To discuss the concepts of Push Down Automata and Turing Machines
4	To strengthen rigorous mathematical reasoning skills

Col	urse Outcomes: The students will able to
1.	Understand how compilers and programming languages are built
2.	Demonstrate knowledge of basic mathematical models of computation and describe how they relate to
	formal languages.
3.	Apply knowledge of computing and mathematics appropriate to the discipline

Semester	Ι	Total Credit	4
Course Code	DSE-I (B)	Credit Pattern	L-48, T-12, P-0
Course Title	Cloud Computing	l -	

Cou	urse Objectives
1	To understand the concept of Virtualization and design of cloud Services
2	To understand cloud computing technologies.
3.	To introduce the broad perceptive of cloud architecture and model To learn to design the trusted cloud Computing system
4.	To introduce the fundamental ideas of the cloud computing model and its origin
5.	To introduce the broad perceptive of cloud architecture and model To learn to design the trusted cloud Computing system
6.	To understand the features of cloud simulator

Coι	irse Outcomes: The students will able to
1.	Identify the architecture and delivery models of cloud computing.
2.	Identify infrastructure.
3.	Understand security, privacy and interoperability issues.
4.	select suitable cloud player
5.	apply suitable virtualization concept
6.	implement cloud services and set a private cloud

Semester	Ι	Total Credit	4
Course Code	DSE 101 - C	Credit Pattern	L-48, T-12, P-0
Course Title	Information Security an	d Cryptography	
Course Objectives			

1	To understand basics of Information security and Cryptography.
2	To be able to secure a message over insecure channel by various means.
2	To learn about how to maintain the Confidentiality, Integrity and Availability of a data.
Cou	irse Outcomes: After successful completion of the course, the students would be able to
Cou 1.	Irse Outcomes: After successful completion of the course, the students would be able to Provide security of the data over the network.

Semester	III	Total Credit	4
Course Code	GE	Credit Pattern	L-44, T- 08, P-08
Course Title	Basics of Indian Economy		

Co	Course Outcomes: Students will be able to			
1	Identify the main issues in Indian economic development			
2	Critically analyse the Indian economic policy environment			

Semest	Semester II		Total Credit	4	
Course Code		CC 201	Credit Pattern	L-48, T-12, P-0	
Course	e Title	Operating	Operating System		
Course	Course Objectives				
1	Learn objective and functions of modern operating systems.				
2	To get in-depth knowledge of process management and inter-process communication				
3	Learn the different memory management and input-output techniques.				

Course	e Outcomes: After successful completion of the course, the students would be able to
1.	Capable of explaining the basic structure and functioning of operating system.
2.	Able to point the problems related to process management and synchronization as well as is
	able to apply learned methods to solve basic problems.
3.	Capable of explaining the cause and effect related to deadlocks and is able to analyze them
	related to common circumstances in operating systems.

4.	Able to explain the basics of memory management, the use of virtual memory in modern
	Operating systems as well as the structure of the most common file-systems.

Semester	П	Total Credit	4
Course Code	CC 202	Credit Pattern	L-45, T-8, P-7
Course Title	Linux Administration and Programming		

Cou	ourse Objectives				
1	To familiarize the student with Linux operating system environment and basic shell script programming				
2	To introduce various system calls, Communication utilities in Linux and the Linux administration.				
Cou	rse Outcome	s : The Students wil	l able to		
1	Write shell so	cript programs in Lin	ux		
2	Use various I	Filters and editors			
3	Create and m	anager file access pe	rmissions		
4	Use various s	system calls			
5	Administratio	on of Linux system			
Sei	nester	II	Total Credit	4	
Co	urse Code	CC 303	Credit Pattern	L-45, T-7, P-8	
Co	urse Title	Java Programming	g		
Со	urse Objectiv	ves			
1	To provide	a student with the so	lid foundation of the sy	yntax and semantics of java Programming and	
	object-orier	nted concepts in Java			
2	To familiar	ize the student to the	application of Except	ion Handling mechanism in Java	
	application		1 1	1 1 1 1 .1 11 [.] 1 [.] . [.] . Y	
3	To familiar	ize the student to the	development of conso	le-based and event handling applications in Java	
4	To demonst	rate use of multi thre	aded application deve	lopment in Java.	
5	To demonst	rate interfacing Java	application with vario	us Database Management Systems.	
Со	Course Outcomes: Students will be able to;				
1	1 To design console based application, accessing command-line arguments and parameterized applets.				
2	2 To design java applications employing streams and exception handling mechanism in Java.				
3	3 To explore different types of JDBC drivers for connecting and accessing data from different backend				
	database management systems.				
4	To design an	nd develop networke	d applications in both of	connection-oriented and connectionless architecture	
	in Java.				
5	To design and implement event handling applications in Java using AWT and Swing.				

II		Tot	al Credit	4	
Course	Code	CC 203	Credit Pattern		L-48, T-0, P-12
Course	Title		Data and File Stru	ictures	3
Course	Objectiv	'es			
1	To find	out types and	difference between	primiti	ve and non-primitive structures.
2	To Design and apply appropriate data structures for solving computing problems.				
3.	To Understand and use various file structures.				
Course	Course Outcomes: The students will able to				
1.	Differentiate between primitive and non-primitive structures.				
2.	Design and create appropriate data structures for solving computing problems.				
3.	Assess and develop new data structure if required.				
4.	Underst	and and use v	various file structures		

Semester	Ш	Total Credit	2	
Course Code	AECC-I	Credit Pattern	L-26, T-4	
Course Title	Professional Communication Skills			
Course Objectiv	Course Objectives			
1	To familiarize learners with the mechanics of communication.			
2	To develop students written expression of thought and build connections between content			
	areas			
3	To develop students oral communication skills by a variety of communication activities,			
	from informal discussion to formal presentation	on		

Semester	П	Total Credit	2
Course Code	GE I A	Credit Pattern	L-22, T-8
Course Title	FUNDAMENTALS OF MANAGEMENT		

Сог	Course Objectives				
1	To Understand the different concepts in Management.				
2	To ur	nderstand the different Functions of Management			
Cou	Course Outcomes: Students will be able to;				
	1.	Discuss management functions and how it can affect future managers			
	2. Analyze and attain elementary level of skills in management process and functions: planni organizing, directing and controlling.				

Semester	II	Total Credit	2
Course Code	GE I B	Credit Pattern	L-23, T-07, P-0
Course Title	ENVIRONMENT AND DEVELOPMENT		

C οι	Course Objectives				
1	Understand the basics functional areas of Environment.				
2	Define concepts of pollution, pollutants and natural resources				
3	Explain historical development of struggle for Environmental protection				

Co	Course Outcomes: The students will able to						
1.	Differentiate biotic and abiotic components of ecosystem & able to understand concept of habitat,						
	interactions in between different components & their Interrelationships.						
2.	Develop ability of identification of local issues related with natural resources.						
3.	Adopt various pollution control techniques.						
4.	Able to know various environmental policies as well as National & International						
	Organizations involved.						

Semester	II	Total Credit	2
Course Code	GE I C	Credit Pattern	L-20, T-5, P-5
Course Title	INDIAN SOCIAI	L PROBLEMS AND SOCIAL	SERVICES

Course Outcomes: Students will be able to			
1	Implement various social welfare services provided by GO's & NGO's		
2	Asses the socio- economic factors and their implications of beneficiaries		

Semester	II	Total Credit	4		
Course Code	GE I D	Credit Pattern	L-44, T-08, P-08		
Course Title	e Principles of Economics				

Course Outcomes: Students will be able to			
1	Understand the micro variables and approach for microeconomic issues		
2	Identify the macro variables in any economy		

Semester		Π	Total Credit	4		
Course Code		DSE 301(B)	Credit Pattern	L-48, T-12, P-0		
Course Title		Computer Graphics				
Course	e Objectives					
1.	To understand the basics and elements of computer graphics.					
2.	To understand the basic idea of scan conversion techniques and various algorithms in graphic primitive generation.					
3.	To learn basic of 2D and 3D transformation and its techniques .					
4.	To understand and learn the concepts of viewing transformations, clipping, projections and rendering with algorithms					
Course Outcomes: After successful completion of the course, the students would be able to						
1.	Present various aspects of computer graphics					
2.	Design and develop graphics programming.					
3.	Build understanding and problem-solving skills required for graphics applications					

Semester - I		Tot	Total Credit			
Course Code CC 303		CC 303	Credit Pattern		L-48, T-12, P-0	
Course Title		Ethical Hacking				
Course Objectives						
1	To familiarize the student with ethical hacking concepts and tools					
2	To introduce various ethical hacking skills and types of attacks					

3.	To know how protect systems from hacking threats		
Course	Course Outcomes: The students will able to		
1.	Will be able to identify the type of hacking attack		
2.	Will be acquainted with ethical hacking skills		
3.	Will be able to use various ethical hacking tools		

Semester	ш	Total Credit	4	
Course Code	CC 301	Credit Pattern	L-48, T-12, P-0	
Course Title	Computer Networks			

Сот	irse Objectives					
1	To learn technology behind network architecture with layered organization.					
2	Gain in depth knowledge of network core and network edge					
3	Uniform coverage of principles, architecture, practical insights of networks					
Сот	irse Outcomes					
Afte	er completion of this course the student will be able to:					
1	Present conceptual aspects of network applications such as web, file transfer, e-mail, and remote access, file sharing.					
2	Understand various protocols such as HTTP, SMTP,POP3,IMAP,FTP, DNS, DHCP and the basic structure of IP V4, IP V6 Address					
3	Understand routing concept and working of routing protocols such as RIP, OSPF and BGP					
4	Understand layered architecture of TCP/IP model and design network applications					
5	Build understanding and problem-solving skills required for network design					
6	Understanding of wireless networks and protocols					

Semester	II	Total Credit	4	
Course Code	CC 302	Credit Pattern	L-48, T-12, P-0	
Course Title	e Artificial Intelligence			

Col	Course Objectives				
1	To endow with various disciplines of artificial intelligence and its applications				
2	To explore knowledge representation techniques in AI.				
3	To demonstrate machine learning through artificial neural networks				
4	To explain handling uncertainty using fuzzy logic.				

Cou	Course Outcomes: The students will able to				
1.	Apply problem solving by intelligent search approach.				
2.	Represent knowledge using AI knowledge representation techniques.				
3.	Design machine learning solution to real life problems.				
4	Derive solutions for problems with uncertainty using fuzzy theory.				

Semester	III	Total Credit	4
Course Code	CC-303	Credit Pattern	L-48, T-6, P-6
Course Title	DATA WARE HO	OUSING AND DATA MINING	

C	Course Objectives			
1	To provide students with basic concepts of data warehouse and data mining.			
2	To develop abilities to solve real time problem by applying appropriate data mining algorithm.			
2	To make students acquaint to different tools and techniques used for Knowledge Discovery in Databases.			

Co	Course Outcomes: The students will able to				
1.	Develop acquaintance with the tools and techniques used for Knowledge Discovery in Databases.				
2.	Discover interesting patterns from large amounts of data to analyze and extract patterns to solve problems				
3.	Evaluate and select appropriate data-mining algorithms				
4.	Apply, and interpret and report the output appropriately				

Semester		III	Total Credit	4	
Course Code		CC 304	Credit Pattern	L-45, T-8, P-7	
Course Title .Net Programming					
Coι	ırse Objectiv	res			
1	To explore t	he knowledge on dif	ferent types of applica	tions of .net	
2	To know ab	out the design metho	dologies with concent	ration on object oriented concepts.	
3.	Giving the s	tudents a complete k	nowledge on .net fram	ework and .net environment.	
4	To provide the knowledge on developing internet applications and how to design and implement complete applications over the web using web form and MVC technology.				
	Giving the students a quick review on web servers, client side programming, server side programming and various web technologies.				
Coi	Course Outcomes: The students will able to				
1.	The syntax and semantics of C# and procedural programming including variable definitions, arithmetic and Boolean expressions, control structures, methods, subroutines, arrays, and References.				
2.	Event-based programming and GUI design				
3.	An idea of what objects are how to design programs using object-oriented design		ing object-oriented design		
	Database management using ADO.net and entity framework technologies				

Sem	nester	ш	Total Credit	4	
Cou	irse Code	CC-305	Credit Pattern	L-48, T-12, P-0	
Cou	Course Title Mobile Computing				
Course Objectives					
1	1 To introduce challenges in app development for thin clients.				

2	To provide acquaitance with popular Android editors such as Eclipse/Android Studio.
3	To familiarize the students about android stack, android sdk, application life cycle, and basic components.
4	To introduce Android's APIs for data storage, retrieval, user preferences, files, databases, and content
	providers
5	5. To introduce persistent data storage using SQLite
Сог	irse Outcomes: Students will be able to;
1	Build android apps in Eclipse/Android Studio.
2	Design and develop useful Android applications using activities, intent and manifest
3	Design and develop useful Android applications Utilizing the power of background services,
	threads, and notifications
4	Develop applications for data storage and retrieval.
5	Sharing data between applications using Content Provider.

SEM-III	AEC- II	Deployment Skills	Credits - 2	Contact	
	(A)			Hours - 30	
COURSE OBJEC	TIVES				
1. To introdu	ce various te	chnologies to manage continuous change			
2. To make the	nem aware a	bout continuous change management pro	cess		
3. To handle	configuratio	n management in effective manner.			
COURSE OUTCOMES					
After Completion of this course students will be able to					
1. Apply various technologies for software deployment.					
2. Compare different technologies for change management.					
3. Decide the technology to use for deployment process.					
4. Prepare a strategy for project deployment.					

Semester	III	Total Credit	4
Course Code	AEC- II	Credit Pattern	L-24, T-06, P-00
Course Title	b. Open Source Platform		

Coι	ırse Objectives				
1	Introduce open source paradigm.				
2	Comprehend the problems with traditional commercial software.				
3	Understand concepts, strategies, and methodologies related to open source software development.				
4	Understand the business, economy, societal and intellectual property issues of open source software.				
5	Be familiar with open source software products and development tools currently available on the market.				
Coι	Course Outcomes				
Afte	er completion of this course the student will be able to:				
	Leaned the need of open source technology, open source development model, application of open sources,				
1	aspects of open source movement				
2	The students will be aware about the problems with traditional commercial software.				

Semester	Ш	Total Credit	4
Course Code	AEC-II	Credit Pattern	L-24, T-06, P-00
Course Title	c. Work Ethics		

Co	Course Objectives		
1	To explain explain concept of ethics.		
2	To explain characteristics of Good Work Ethics		
3	To discuss different ethical theories		
4	To discuss OHS and related Acts		
Co	Course Outcomes		
Aft	er completion of this course the student will be able to:		
1	Develop strong work ethics		
2	Apply critical thinking skills.		
3	Apply conflict resolution strategies and skills		
4	Follow ethical principals		
5	Follow OHS Acts		

Semester	III	Total Credit	2
Course Code	AEC- II	Credit Pattern	L-30,
Course Title	d. Organization B	ehavior	

C οι	irse Objectives
1	To help the students to develop cognizance of the importance of human behaviour.
2	To enable students to describe how people behave under different conditions and understand why people
	behave as they do.
3.	To provide the students to analyse specific strategic human resources demands for future action.
4.	To enable students to synthesize related information and evaluate options for the most logical and
	optimal solution such that they would be able to predict and control human behaviour and improve
	results.
Coι	arse Outcomes: The students will able to
1.	CO1: Demonstrate the applicability of the concept of organizational behavior to understand the behavior
	of people in the organization.
2.	CO2: Demonstrate the applicability of analyzing the complexities associated with management of
	individual behavior in the organization.
3.	CO3: Analyze the complexities associated with management of the group behavior in the organization.
4.	CO4: Demonstrate how the organizational behavior can integrate in understanding the motivation (why)

Semester	ш	Total Credit	4
Course Code	DSE-III (A)	Credit Pattern	L-45, T-7, P-8

Course Title		Advanced Java
Cours	e Objectiv	Ves
1	To intro	duce a student to an entirely a new way to build distributed, desktop and mobile applications.
2	To provi	de a student with the solid foundation of the syntax and semantics of
	java Prog	gramming as well as application architecture, data access technology geared to
	facilitate	the development of distributed systems.
3	To famil	iarize the student with the development of N-tier web-based applications
4	To incul	cate the skills among student for developing application in par with industry standards.
5	To famil	iarize student with MVC architecture and OR mapping tools
Cours	e Outcom	es: Students will be able to;
1	To desig	n two-tier, three-tier and scalable N-tier web applications.
2	To desig	n java applications employing various middle tier technologies.
3	To design	n applications by integrating struts2 and hibernate technologies.
4	To explor	re dependency injection and aspect oriented programming features of Spring framework.
5	To design	n applications by integrating struts2, hibernate and spring technologies.

Semester	III	Total Credit	4		
Course Code	DSE-III (C)	Credit Pattern	L-48, T-12, P-0		
Course Title	Cryptanalysis				
Course Ob	Course Objectives				
1	To understand basics of	Cryptanalysis and Cryptography.			
2	To be able to secure a message over insecure channel by various means.				
2	To learn about how to "crack" enciphered messages without knowing, at the outset, the enciphering keys.				
Course Outcomes: After successful completion of the course, the students would be able to					
1.	Provide security of the d	ata over the network.			
2.	Do research in the emer	ging areas of cryptanalysis and Information secu	ırity		

Semester		Total Credit	2
Course Code		Credit Pattern	L-22, T-4, P-4
Course Title	Entrepreneurship	Development	

C οι	Course Objectives		
1	To understand the concept and importance of entrepreneurship		
2	To develop entrepreneurial skills and abilities among the students to run business efficiently and effectively		
3	To provide insights to the students on entrepreneurship opportunities		

4 To familiarize students with the support system provided by the government for entrepreneurship.

Co	Course Outcomes: Students will be able to		
1	Explain Basic Concept of Entrepreneurship and link the Entrepreneurship with Economic Development.		
2	Develop the Business Plan for any kind of new enterprise.		
3	Discuss Role of Central and State Government in Entrepreneurship Development.		

Semester	III	Total Credit	2
Course Code	GE 301 E	Credit Pattern	L-23, T-07, P-0
Course Title	DISASTER MAN	AGEMENT	

Course Objectives		
1	Understand the concept and impact of disasters.	
2	Describe the causes, effects and control measures of disasters.	

Coi	urse Outcomes: After completion of this course students will have capacity to
1.	Recognize the various global and regional environmental concerns/hazards due to natural causes and/or
	human activities, and the impact of these on various forms of life .
2.	Obtain and communicate information on risks, relief needs and lessons learned from earlier disasters in
	order to formulate strategies for mitigation in future scenarios
3.	Describe and evaluate the environmental, social, economic, legal and organizational aspects influencing
	vulnerabilities and capacities to face disasters.
4.	Relate theoretically and practically in the processes of disaster management (disaster risk reduction,
	response, and recovery)

Semester	ш	Total Credit	2
Course Code	GE	Credit Pattern	L-20, T-5, P-5
Course Title	CORPORATE SOCIAL RESPONSIBILITY		

Course Objectives		
1	To understand the scope and complexity of corporate social responsibility.	
2	To gain knowledge of the impact of CSR implementation on societies	
3	To acquire skills to frame and design CSR policies and practices appropriate to the Indian workplace.	

Course Outcomes: Students will be able to		
1	know the Corporate Social Responsibility of different sector.	
2	use the acquired skill for proper sustainable Corporate Social responsibility.	

Semester	III	Total Credit	4
Course Code	GE	Credit Pattern	L-44, T- 08, P-08
Course Title	Basics of Indian E	conomy	

Course Outcomes: Students will be able to	
1	Identify the main issues in Indian economic development
2	Critically analyses the Indian economic policy environment