

ACADEMIC CURRICULA

UNDERGRADUATE/ INTEGRATED

POST GRADUATE DEGREE

PROGRAMMES

(With exit option of Diploma)

(Choice Based Flexible Credit System)

Regulations 2021

Volume – 1

(Updated on July 2025)



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

Kattankulathur, Chengalpattu District 603203,

Tamil Nadu, India

30. B.Tech. in Computer Science and Business System

30. (a) Mission of the Department

Mission Stmt – 1	<i>To impart knowledge in cutting edge Computer Science and Engineering technologies in par with industrial standards.</i>
Mission Stmt – 2	<i>To collaborate with renowned academic institutions to uplift innovative research and development in Computer Science and Engineering and its allied fields to serve the needs of society</i>
Mission Stmt – 3	<i>To demonstrate strong communication skills and possess the ability to design computing systems individually as well as part of a multidisciplinary teams.</i>
Mission Stmt – 4	<i>To instill societal, safety, cultural, environmental, and ethical responsibilities in all professional activities</i>
Mission Stmt – 5	<i>To provide a platform to adapt and work with innovative tools and techniques related to the business decision making process.</i>

30. (b) Program Educational Objectives (PEO)

PEO – 1	<i>Graduates will be able to perform in technical / managerial roles by thorough understanding of contemporary technologies</i>
PEO – 2	<i>Graduates will be able to successfully pursue higher education in reputed institutions where information technology businesses are a priority</i>
PEO – 3	<i>Graduates will be able to apply technology abstraction and common business principles</i>
PEO – 4	<i>Graduates will be able to demonstrate innovation abilities.</i>
PEO – 5	<i>Graduates will be able to demonstrate ethics and responsibility and have accumulated life values</i>

30. (c) Mission of the Department to Program Educational Objectives (PEO) Mapping

	Mission Stmt. - 1	Mission Stmt. - 2	Mission Stmt. - 3	Mission Stmt. - 4	Mission Stmt. - 5
PEO - 1	3	-	-	-	-
PEO - 2	-	2	2	-	-
PEO - 3	1	-	3	-	3
PEO - 4	-	3	-	-	2
PEO - 5	-	-	-	3	3

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation

30. (d) Mapping Program Educational Objectives (PEO) to Program Outcomes (PO)

	Program Outcomes (PO)												Program Specific Outcomes (PSO)		
	1	2	3	4	5	6	7	8	9	10	11	12	PSO-1	PSO-2	PSO-3
	Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning			
PEO - 1	3	-	-	-	3	-	-	-	-	-	2	-	-	2	-
PEO - 2	-	2	2	-	3	-	3	2	-	-	-	-	2	-	-
PEO - 3	-	-	-	-	-	3	-	-	-	-	3	2	-	-	3
PEO - 4	-	-	-	3	-	-	-	-	-	3	3		-	-	-
PEO - 5	-	-	-	-	3	-	-	3	2	-	-	2	-	-	-

3 – High Correlation, 2 – Medium Correlation, 1 – Low Correlation

PSO – Program Specific Outcomes (PSO)

PSO - 1	<i>To understand, analyse, design, and develop computing solutions by applying fundamental concepts of computer science and engineering</i>
PSO - 2	<i>Ability to create innovative Software for business and service orientations</i>
PSO - 3	<i>Ability to demonstrate personal, organizational and entrepreneurship skills through critical thinking, engage themselves in life-long learning by following innovations in business, science & technology.</i>

30. (e) Program Structure: B.Tech. in Computer Science and Business System

Humanities & Social Sciences including Management Courses (H)						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21LEH101T	Communicative English	2	1	0	3	
21LEH102T	Chinese					
21LEH103T	French					
21LEH104T	German					
21LEH105T	Japanese	2	1	0	3	
21LEH106T	Korean					
21LEH107T	Spanish					
21LEH108T	Russian					
21GNH101J	Philosophy of Engineering	1	0	2	2	
21PDH209T ¹	Social Engineering	2	0	0	2	
21GNH401TA	Behavioral Psychology	2	1	0	3	
21MGH101T	Fundamentals of Economics	3	0	0	3	
21MGH102T	Fundamentals of Management	3	0	0	3	
21MGH103T	Basics of Accounting and Costing	2	1	0	3	
21MGH201T	Human Resource Management	2	0	0	2	
21MGH202T	Financial Management	2	0	0	2	
21MGH203J	Market Research	2	0	2	3	
21MGH301T	Introduction to Innovation, Intellectual Property Management and Entrepreneurship	3	0	0	3	
21MGH302T	Business Strategy	3	0	0	3	
21MGH303P ¹	IT project Management	2	1	0	3	
21MGH401T	Entrepreneurship and Family Business Management	3	0	0	3	
21MGH402T	Services Science and Service Operations Management	3	0	0	3	
Total Credits 44						
Non Credit Courses (M)						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21PDM101L ¹	Professional Skills and Practices	0	0	2	0	
21PDM102L ¹	General Aptitude	0	0	2		
21PDM201L ¹	Verbal Reasoning	0	0	2		
21PDM202L ¹	Critical and Creative Thinking Skills	0	0	2		
21PDM301L ¹	Analytical and Logical Thinking Skills	0	0	2		
21PDM302L ¹	Employability Skills and Practices	0	0	2		
21CYM101T ¹	Environmental Science	1	0	0	0	
21LEM101T ¹	Constitution of India	1	0	0	0	
21LEM102T ¹	Universal Human Values – Introduction	1	0	0	0	
21LEM201T ¹	Professional Ethics	1	0	0	0	
21LEM202T ¹	Universal Human Values-II: Understanding Harmony and Ethical Human Conduct	2	1	0	3	
21LEM301T ¹	Indian Art Form	1	0	0	0	
21LEM302T ¹	Indian Traditional Knowledge	1	0	0	0	
21GNM101L ¹	Physical and Mental Health using Yoga	0	0	2	0	
21GNM102L ¹	National Service Scheme					
21GNM103L ¹	National Cadet Corps					
21GNM104L ¹	National Sports Organization					
Total Credits 03						

Basic Science Courses (B)					
Course Code	Course Title	Hours / Week			C
		L	T	P	
21PYB102J	Semiconductor Physics and Computational Methods	3	1	2	5
21MAB101T	Calculus and Linear Algebra	3	1	0	4
21MAB210T	Statistical Modeling	3	1	0	4
21MAB301T	Probability and Statistics	3	1	0	4
21MAB302T	Discrete Mathematics	3	1	0	4
Total Credits 21					
Professional Core Courses(C)					
Course Code	Course Title	Hours / Week			C
		L	T	P	
21CSC101T	Object Oriented Design and Programming	2	1	0	3
21CSC201J	Data Structures and Algorithms	3	0	2	4
21CSC202J	Operating Systems	3	0	2	4
21CSC204J	Design and Analysis of Algorithms	3	0	2	4
21CSC205P ¹	Database Management Systems	3	1	0	4
21CSC206T	Artificial Intelligence	2	1	0	3
21CSC301T	Formal Language and Automata	3	0	0	3
21CSC302J	Computer Networks	3	0	2	4
21CSC303J	Software Engineering and Project Management	2	0	2	3
21CSC304J	Compiler Design	2	0	2	3
Total Credits 35					
Open Elective Courses (O) (Any 1 courses)					
Course Code	Course Title	Hours / Week			C
		L	T	P	
21CSO351T	Web Programming	2	1	0	3
21CSO352T	Python Programming	2	1	0	3
21CSO353T	Mobile Application Development	2	1	0	3
21CSO354T	Data Analytics	2	1	0	3
Total Credits 03					
Engineering Science Courses (S)					
Course Code	Course Title	Hours / Week			C
		L	T	P	
21EES101T	Electrical and Electronics Engineering	3	1	0	4
21CSS101J	Programming for Problem Solving	3	0	2	4
21CSS201T	Computer Organization and Architecture	3	1	0	4
21DCS201P ¹	Design Thinking and Methodology	1	2	0	3
21CSS303T	Data Science	2	0	0	2
Total Credits 17					
Project Work, Seminar, Internship in Industry / Higher Technical Institutions (P)					
Course Code	Course Title	Hours / Week			C
		L	T	P	
21GNP301L ₁	Community Connect	0	0	2	1
21CSP302L ¹	Project	0	0	6	3
21CSP303T ¹	MOOC	3	0	0	
21CSP401L	Major Project	0	0	30	15
21CSP402L	Major Project	0	0	20	10
21CSP403L	Internship#	0	0	10	5
Total Credits 19					

Professional Elective Courses (E) (Any 7 Courses)							Professional Elective Courses (E)						
Course Code	Course Title	Hours / week			C		Course Code	Course Title	Hours / week			C	
		L	T	P					L	T	P		
21CSE251T	Digital Image Processing	3	0	0	3		21CSE358T	Network Security and Cryptography	2	1	0	3	
21CSE253T	Internet of Things	2	1	0	3		21CSE359T	Information Storage and Management	2	1	0	3	
21CSE221T	Python Programming for Data Analytics	2	1	0	3		21CSE362T	Cloud Computing	2	1	0	3	
21CSE269T	Java Programming	2	1	0	3		21CSE374T	Machine Learning for Enterprise	3	0	0	3	
21CSE282T	Information Security	3	0	0	3		21CSE402P ¹	Intelligent Systems for IoT Applications	2	1	0	3	
21CSE306P ¹	Applied Generative AI	2	1	0	3		21CSE421T	Business Intelligence and Analytics	2	1	0	3	
21CSE315P ¹	Data Orchestration and Management in Cloud Ecosystems	2	1	0	3		21CSE424T	Deep Learning for Data Analytics	2	1	0	3	
21CSE314T	Computational Statistics	3	0	0	3		21CSE451T	Pattern Recognition Techniques	2	1	0	3	
21CSE315T	Conversational Systems	2	1	0	3		21CSE453T	Speech Recognition	2	1	0	3	
21CSE316T	Cognitive Science and Analytics	3	0	0	3		21CSE456T	Software Defined Networks	2	1	0	3	
21CSE317T	Behavioral Economics	2	1	0	3		21CSE458T	Wireless and Mobile Communication	2	1	0	3	
21CSE318T	Computational Finance and Modeling	2	1	0	3		21CSE459T	Wireless Sensor Networks	2	1	0	3	
21CSE319T	Advance Finance	2	1	0	3		21CSE481T	Information Visualization	2	1	0	3	
21CSE352T	Neuro Fuzzy and Genetic Programming	2	1	0	3		21CSE483T	Robotics and Embedded Systems	3	0	0	3	
21CSE353T	Augmented, Virtual and Mixed Reality	2	1	0	3		21CSE484T	Enterprise Systems	3	0	0	3	
21CSE354T	Full Stack Web Development	2	1	0	3		21CSE419T	Usability Design of Software Applications	3	0	0	3	
21CSE355T	Data Mining and Analytics	2	1	0	3		21CSE420T	IT Workshop using Scilab	2	1	0	3	
21CSE356T	Natural Language Processing	2	1	0	3		Total Credits						21
21CSE357T	Distributed Computing	2	1	0	3								

30. (f) Programme Articulation: B.Tech. in Computer Science and Business System

Course Code	Course Name	Program Outcomes (PO)												PSO		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
		Engineering Knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern Tool Usage	The engineer and society	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO-1	PSO-2	PSO-3
21MGH101T	Fundamentals of Economics	2	3	2	3	2	-	2	2	2	2	2	-	-	-	-
21MGH102T	Fundamentals of Management	2	2	3	2	2	3	2	-	2	2	2	2	-	2	2
21MGH103T	Basics of Accounting and Costing	2	3	2	3	3	2	3	2	2	3	3	3	-	2	1
21MGH201T	Human Resource Management	-	3	3	-	2	1	-	3	-	-	3	2	-	-	3
21MGH202T	Financial Management	-	3	-	3	-	-	-	1	2	-	3	3	-	2	3
21MGH203J	Market Research	-	-	-	-	2	2	-	2	2	2	-	1	-	2	3
21MGH301T	Introduction to Innovation, Intellectual Property Management and Entrepreneurship	3	3	2	2	3	2	1	1	2	2	3	2	-	2	2
21MGH302T	Business Strategy	2	2	2	-	-	3	2	2	2	1	3	2	-	-	2
21MGH303P	IT project Management	-	2	-	3	-	-	-	3	-	-	3	-	-	-	2
21MGH401T	Entrepreneurship and Family Business Management	2	2	3	-	-	-	-	1	2	2	2	-	-	2	3
21MGH402T	Services Science and Service Operations Management	3	3	2	2	-	1	-	1	-	1	1	-	-	-	2
21CSS101J	Programming for Problem Solving	2	3	-	-	-	-	-	-	-	-	-	2	-	3	-
21CSS303T	Data Science	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
21CSS201T	Computer Organization and Architecture	3	2	-	-	-	-	-	-	-	-	-	-	1	2	1
21CSC201J	Data Structures and Algorithms	2	3	3	1	-	-	-	-	-	-	-	-	1	1	2
21CSC101T	Object Oriented Design and Programming	-	2	2	-	2	-	-	-	-	-	-	3	-	2	2
21CSC204J	Design and Analysis of Algorithms	2	1	2	1	-	-	-	-	-	3	-	3	3	1	-
21CSC202J	Operating Systems	3	3	3	2	-	-	-	-	-	-	-	3	2	-	-
21CSC303J	Software Engineering and Project Management	-	3	2	-	-	-	-	-	2	-	2	-	3	-	-
21CSC301T	Formal Language and Automata	2	2	2	-	-	-	-	-	-	-	-	-	-	3	-
21CSC302J	Computer Networks	3	-	-	2	3	-	-	-	-	-	-	-	1	-	-
21CSC205P	Database Management Systems	3	2	2	-	-	-	-	-	-	-	-	-	2	1	-
21CSC304J	Compiler Design	3	3	2	3	2	-	-	-	-	-	-	-	-	1	-
21CSC206T	Artificial Intelligence	1	2	3	-	-	-	-	-	-	-	-	-	1	2	-
21CSE251T	Digital Image Processing	3	3	3	3	-	-	-	-	-	-	-	-	2	3	-
21CSE253T	Internet of Things	2	3	1	3	1	2	-	-	-	-	-	-	-	-	-
21CSE221T	Python Programming for Data Analytics	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
21CSE269T	Java Programming	2	1	2	1	-	-	-	-	-	3	-	-	2	-	-
21CSE282T	Information Security	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
21CSE314T	Computational Statistics	2	3	2	3	1	-	-	-	-	-	-	-	1	1	-
21CSE315T	Conversational Systems	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-
21CSE316T	Cognitive Science and Analytics	2	3	3	-	-	-	-	-	-	-	-	-	1	-	-
21CSE317T	Behavioral Economics	-	2	-	2	1	2	1	2	2	2	2	-	-	2	2
21CSE318T	Computational Finance and Modeling	1	2	3	2	2	-	3	-	2	-	2	2	-	-	3
21CSE319T	Advance Finance	2	3	3	2	3	-	1	2	2	-	3	-	-	-	1
21CSE352T	Neuro Fuzzy and Genetic Programming	3	3	-	-	3	-	-	-	-	-	-	-	-	2	-
21CSE353T	Augmented, Virtual and Mixed Reality	3	-	3	-	2	-	-	2	-	-	-	-	-	-	2
21CSE354T	Full Stack Web Development	3	2	2	-	-	-	-	-	-	-	-	-	2	-	-
21CSE355T	Data Mining and Analytics	1	2	-	-	3	-	-	-	-	-	-	-	-	-	-
21CSE356T	Natural Language Processing	3	3	2	3	3	-	-	-	-	-	-	-	2	-	-
21CSE357T	Distributed Computing	-	-	3	3	3	-	-	-	-	-	-	-	2	-	-
21CSE358T	Network Security and Cryptography	2	3	3	-	2	-	-	-	-	-	-	-	-	-	-
21CSE359T	Information Storage and Management	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-
21CSE362T	Cloud Computing Technologies	2	-	3	-	3	-	-	-	-	-	-	-	-	-	-
21CSE374T	Machine Learning for Enterprise	3	1	3	1	-	-	-	-	-	-	-	-	1	1	-
21CSE419T	Usability Design of Software Applications	3	2	-	-	-	-	-	-	-	-	-	-	2	2	-
21CSE420T	IT Workshop using Scilab	3	2	-	-	-	2	3	-	1	-	-	-	2	3	-
21CSE421T	Business Intelligence and Analytics	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2
21CSE424T	Deep Learning for Data Analytics	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2
21CSE451T	Pattern Recognition Techniques	3	2	2	-	2	-	-	-	-	-	-	-	-	2	2
21CSE453T	Speech Recognition	3	2	3	2	-	-	-	-	-	-	-	-	-	3	-
21CSE456T	Software Defined Networks	2	3	1	3	1	2	-	-	-	-	-	-	-	-	-

[illegible]

30. (g) Implementation Plan: B.Tech. in Computer Science and Business System

Semester – I						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21LEH101T	Communicative English	2	1	0	3	
21EES101T	Electrical and Electronics Engineering	3	1	0	4	
21MGH101T	Fundamentals of Economics	3	0	0	3	
21MGH102T	Fundamentals of Management	3	0	0	3	
21MAB101T	Calculus and Linear Algebra	3	1	0	4	
21CSS101J	Programming for Problem Solving	3	0	2	4	
21PDM101L ¹	Professional Skills and Practices	0	0	2	0	
21CYM101T ¹	Environmental Science*	1	0	0	0	
21LEM101T ¹	Constitution of India	1	0	0	0	
Total Credits 21						
Semester – III						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21MGH201T	Human Resource Management	2	0	0	2	
21MGH202T	Financial Management	2	0	0	2	
21MAB210T	Statistical Modeling	3	1	0	4	
21DCS201P ¹	Design Thinking and Methodology	1	2	0	3	
21CSS201T	Computer Organization and Architecture	3	1	0	4	
21CSC201J	Data Structures and Algorithms	3	0	2	4	
21CSC202J	Operating Systems	3	0	2	4	
21LEM201T ¹	Professional Ethics	1	0	0	0	
21PDM201L ¹	Verbal Reasoning	0	0	2	0	
Total Credits 23						
Semester – V						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21MGH301T	Introduction to Innovation, Intellectual Property Management and Entrepreneurship	3	0	0	3	
21MGH302T	Business Strategy	3	0	0	3	
21CSC301T	Formal Language and Automata	3	0	0	3	
21CSC302J	Computer Networks	3	0	2	4	
E	Professional Elective – II				3	
O	Open Elective – I				3	
21GNP301L ¹	Community Connect	0	0	2	1	
21PDM301L ¹	Analytical and Logical Thinking Skills	0	0	2	0	
21LEM301T ¹	Indian Art Form	1	0	0	0	
Total Credits 20						
Semester – VII						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21GNH401TA	Behavioral Psychology	2	1	0	3	
21MGH401T	Entrepreneurship and Family Business Management	3	0	0	3	
21MGH402T	Services Science and Service Operations Management	3	0	0	3	
E	Professional Elective – V				3	
E	Professional Elective – VI				3	
E	Professional Elective – VII				3	
Total Credits 18						
#Students have to register either 21CSP401L or 21CSP402L and 21CSP403L both in eighth semester						

Semester – II						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21LEH102T	Chinese	2	1	0	3	
21LEH103T	French					
21LEH104T	German					
21LEH105T	Japanese					
21LEH106T	Korean					
21LEH107T	Spanish					
21LEH108T	Russian					
21MGH103T	Basics of Accounting and Costing					2
21GNH101J	Philosophy of Engineering	1	0	2	2	
21MAB301T	Probability and Statistics	3	1	0	4	
21PYB102J	Semiconductor Physics and Computational Methods	3	1	2	5	
21CSC101T	Object Oriented Design and Programming	2	1	0	3	
21PDM102L ¹	General Aptitude*	0	0	2	0	
21GNM101L ¹	Physical and Mental Health using Yoga	0	0	2	0	
21GNM102L ¹	National Service Scheme					
21GNM103L ¹	National Cadet Corps					
21GNM104L ¹	National Sports Organization					
Total Credits 20						
Semester – IV						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21PDH209T ¹	Social Engineering	2	0	0	2	
21MGH203J	Market Research	2	0	2	3	
21MAB302T	Discrete Mathematics	3	1	0	4	
21CSC204J	Design and Analysis of Algorithms	3	0	2	4	
21CSC205P ¹	Database Management Systems	3	1	0	4	
21CSC206T	Artificial Intelligence	2	1	0	3	
E	Professional Elective-I				3	
21PDM202L ¹	Critical and Creative Thinking Skills	0	0	2	0	
21LEM202T ¹	Universal Human Values-II: Understanding Harmony and Ethical Human Conduct	2	1	0	3	
Total Credits 26						
Semester – VI						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21MGH303P ¹	IT project Management	2	1	0	3	
21CSS303T	Data Science	2	0	0	2	
21CSC303J	Software Engineering and Project Management	2	0	2	3	
21CSC304J	Compiler Design	2	0	2	3	
E	Professional Elective – III				3	
E	Professional Elective – IV				3	
21CSP302L ¹	Project	0	0	6	3	
21CSP303T ¹	MOOC	3	0	0		
21PDM302L ¹	Employability Skills and Practices	0	0	2	0	
21LEM302T ¹	Indian Traditional Knowledge	1	0	0	0	
Total Credits 20						
Semester - VIII						
Course Code	Course Title	Hours / Week				
		L	T	P	C	
21CSP401L	Major Project	0	0	30	15	
21CSP402L	Major Project	0	0	20	10	
21CSP403L	Internship#	0	0	10	5	
Total Credits 15						

#Students have to register either 21CSP401L or 21CSP402L and 21CSP403L both in eighth semester