

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

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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

Kattankulathur, Chengalpattu District 603203,

Tamil Nadu, India

26. B.Tech. in Computer Science and Engineering with Specialization in Gaming Technology

26. (a) Mission of the Department

Mission Stmt – 1	To impart knowledge in cutting edge Computer Science and Engineering technologies in par with industrial standards.
Mission Stmt – 2	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
Mission Stmt – 3	To demonstrate strong communication skills and possess the ability to design computing systems individually as well as part of a multidisciplinary teams.
Mission Stmt – 4	To instill societal, safety, cultural, environmental, and ethical responsibilities in all professional activities
Mission Stmt – 5	Game Technology creates and supports game-based education that empowers the students for life-long learners to achieve Academic, social, emotional and personal success.

26. (b) Program Educational Objectives (PEO)

PEO – 1	Graduates will be able to perform in technical/managerial roles ranging from design, development, problem solving to production support in software industries and R&D sectors.
PEO – 2	Graduates will be able to successfully pursue higher education in reputed institutions.
PEO – 3	Graduates will have the ability to adapt, contribute and innovate new technologies and systems in the key domains of Computer Science and Engineering.
PEO – 4	Graduates will be ethically and socially responsible solution providers and entrepreneurs in Computer Science and other engineering disciplines.
PEO – 5	Graduates will be educated with Game Programming and adopt emerging technology with Gaming Industry

26. (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	-	-
PEO - 3	-	3	3	-	-
PEO - 4	-	-	-	2	-
PEO - 5	-	-	-	-	3

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

26. (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	-	-	1	-	2	-	3	2	3	-	-	3	3	2
PEO - 2	-	2	2		3	-	3	2	-	-	-	-	2	3	3
PEO - 3	-	3	3	2	-	-	-	-	-	2	-	3	3	3	3
PEO - 4	-	2	3	-	-	3	2	-	2	-	2	2	3	3	2
PEO - 5	-	-	2	-	3	-	-	-	3	-	2	3	3	3	3

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

PSO – Program Specific Outcomes (PSO)

PSO - 1	To understand, analyze, design, and develop computing solutions by applying fundamental concepts of computer science and engineering.
PSO - 2	To apply computing principles, skills and practices to develop solutions using logical and reasoning skills, for real life problems.
PSO - 3	To Identify and apply Emerging Technologies in the Gaming Industry.

26. (e) Program Structure: B.Tech. in Computer Science and Engineering with Specialization in Gaming Technology

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	2	1	0	3
21LEH103T	French				
21LEH104T	German				
21LEH105T	Japanese				
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
Total Credits					13

Basic Science Courses (B)					
Course Code	Course Title	Hours / Week			
		L	T	P	C
21PYB102J	Semiconductor Physics and Computational Methods	3	1	2	5
21CYB101J	Chemistry	3	1	2	5
21MAB101T	Calculus and Linear Algebra	3	1	0	4
21MAB102T	Advanced Calculus and Complex Analysis	3	1	0	4
21MAB201T	Transforms and Boundary Value Problems	3	1	0	4
21MAB204T	Probability and Queueing Theory	3	1	0	4
21MAB302T	Discrete Mathematics	3	1	0	4
21BTB102T	Introduction to Computational Biology	2	0	0	2
Total Credits					32

Engineering Science Courses (S)					
Course Code	Course Title	Hours / Week			
		L	T	P	C
21CSS101J	Programming for Problem Solving	3	0	2	4
21MES101L ¹	Basic Civil and Mechanical Workshop	0	0	4	2
21MES102L ¹	Engineering Graphics and Design	0	0	4	2
21EES101T	Electrical and Electronics Engineering	3	1	0	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					21

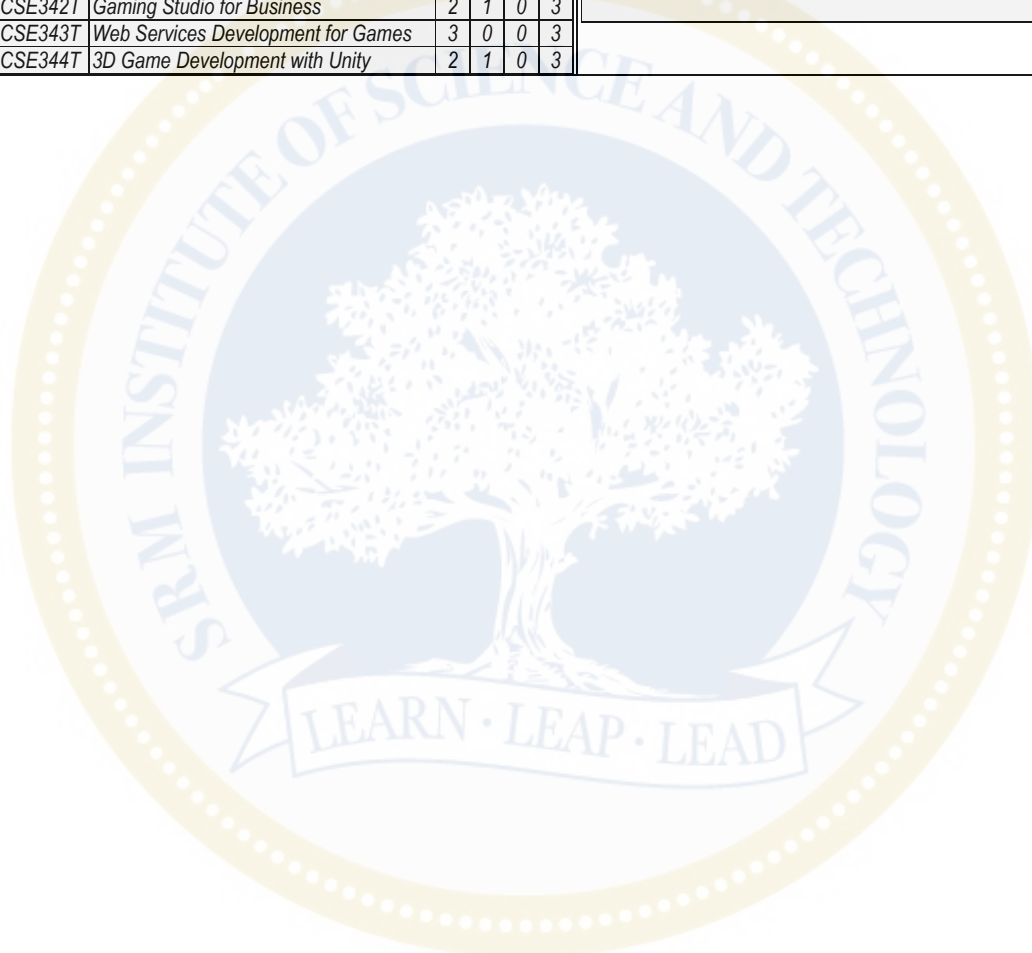
Professional Core Courses (C)					
Course Code	Course Title	Hours / Week			
		L	T	P	C
21CSC101T	Object Oriented Design and Programming	2	1	0	3
21CSC201J	Data Structures and Algorithms	3	0	2	4
21CSC202J	Operating Systems	3	0	2	4
21CSC203P ¹	Advanced Programming Practice	3	1	0	4
21CSC204J	Design and Analysis of Algorithms	3	0	2	4
21CSC205P ¹	Database Management Systems	3	1	0	4
21CSC206T	Artificial Intelligence	2	1	0	3
21CSC301T	Formal Language and Automata	3	0	0	3
21CSC302J	Computer Networks	3	0	2	4
21CSC306J	Software Engineering Perspectives in Computer Game Development	2	0	2	3
21CSC304J	Compiler Design	2	0	2	3
21CSC307T	Deep Learning in Gaming and Application	2	1	0	3
Total Credits					42

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

Project Work, Seminar, Internship in Industry / Higher Technical Institutions (P)					
Course Code	Course Title	Hours / Week			
		L	T	P	C
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

Open Elective Courses (O) (Any 3 courses)					
Course Code	Course Title	Hours/ Week			
		L	T	P	C
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					09

Professional Elective Courses (E) (Any 8 Courses)							Professional Elective Courses (E)						
Course Code	Course Title	Hours / Week					Course Code	Course Title	Hours / Week				
		L	T	P					L	T	P		
21CSE235T	Game Design, Prototyping and Development	3	0	0	3		21CSE345T	Game System Integration	3	0	0	3	
21CSE236T	GPU Programming	3	0	0	3		21CSE346T	Design Art and Theory	3	0	0	3	
21CSE237T	Art Creation for Games	2	1	0	3		21CSE402P	Intelligent Systems for IoT Applications	2	1	0	3	
21CSE238T	Storytelling for Marketing	2	1	0	3		21CSE439T	Virtual Reality and Augmented Reality	2	1	0	3	
21CSE306P	Applied Generative AI	2	1	0	3		21CSE440T	Computer Animation and Simulation	3	0	0	3	
21CSE315P	Data Orchestration and Management in Cloud Ecosystems	2	1	0	3		21CSE441T	Mobile Game Development	2	1	0	3	
21CSE339T	Game Artificial Intelligence	3	0	0	3		21CSE442T	Game Monetization Techniques	2	1	0	3	
21CSE340T	Analytics and Decision Making	2	1	0	3		21CSE443T	Game Production and Publishing	2	1	0	3	
21CSE341T	Computer Graphics	2	1	0	3		21CSE444T	Applied Gamification	3	0	0	3	
21CSE342T	Gaming Studio for Business	2	1	0	3		21CSE445T	Metaverse Fundamentals	2	1	0	3	
21CSE343T	Web Services Development for Games	3	0	0	3		21CSE446T	Digital Marketing and Publishing	3	0	0	3	
21CSE344T	3D Game Development with Unity	2	1	0	3		Total Credits						24



26. (f) **Programme Articulation: B.Tech. in Computer Science and Engineering with Specialization in Gaming Technology**

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
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	1	-	
21CSC202J	Operating Systems	3	3	3	2	-	-	-	-	-	-	3	2	-	-	
21CSC303J	Software Engineering and Project Management	-	3	2	-	-	-	-	-	2	-	2	-	3	-	
21CSC203P	Advanced Programming Practice	3	2	2	1	2	-	-	-	1	-	-	-	2	-	
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	-	
21CSC307T	Deep Learning in Gaming and Application	3	2	3	3	3								2	2	
21CSE235T	Game Design, Prototyping and Development		3	3	2					2						
21CSE236T	GPU Programming	1	2	3		2										
21CSE237T	Art Creation for Games	3	2	2		2	2							2	2	
21CSE238T	Storytelling for Marketing	2		2	2					2				2	2	
21CSE339T	Game Artificial Intelligence	3	2	3		3								2	3	
21CSE340T	Analytics and Decision Making	2	2	2		3	2							2	2	
21CSE341T	Computer Graphics	3	2											2	2	
21CSE342T	Gaming Studio for Business	2	2	3	3	2		2		2						
21CSE343T	Web services development for Games		2			2										
21CSE344T	3D Game Development with Unity	2	2	3	2	3								2	2	
21CSE345T	Game System Integration	2	2	3	2	3										
21CSE346T	Design art and theory	3	2													
21CSE439T	Virtual Reality and Augmented Reality	3	3	2	2	3								2	2	
21CSE440T	Computer Animation and Simulation	2	2	2	2											
21CSE441T	Mobile Game Development	3	2											2	2	
21CSE442T	Game Monetization Techniques	3	3	2	3										2	
21CSE443T	Game Production and Publishing	3	2	3	2	3								2	2	
21CSE444T	Applied Gamification	2	3	2	1										2	
21CSE445T	Metaverse Fundamentals	2	2	3	2	3	2									
21CSE446T	Digital marketing and Publishing	2		3	2		2			3	3					
21CSP302L	Project	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
21CSP303T	MOOC	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
21CSP401L	Major Project	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
21CSP402L	Internship	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Program Average		3	3	3	3	3	3	3	3	3	3	3	3	3	3	

Semester – I							
Course Code	Course Title	Hours / Week				C	
		L	T	P			
21LEH102T	Chinese	2	1	0	3		
21LEH103T	French						
21LEH104T	German						
21LEH105T	Japanese						
21LEH106T	Korean						
21LEH107T	Spanish						
21LEH108T	Russian						
21GNH101J	Philosophy of Engineering	1	0	2	2		
21MAB101T	Calculus and Linear Algebra	3	1	0	4		
21CYB101J	Chemistry	3	1	2	5		
21BTB102T	Introduction to Computational Biology	2	0	0	2		
21CSS101J	Programming for Problem Solving	3	0	2	4		
21MES101L ¹	Basic Civil and Mechanical Workshop	0	0	4	2		
21PDM101L ¹	Professional Skills and Practices	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						22	

Semester – II							
Course Code	Course Title	Hours / Week				C	
		L	T	P			
21LEH101T	Communicative English	2	1	0	3		
21MAB102T	Advanced Calculus and Complex Analysis	3	1	0	4		
21PYB102J	Semiconductor Physics and Computational Methods	3	1	2	5		
21MES102L ¹	Engineering Graphics and Design	0	0	4	2		
21EES101T	Electrical and Electronics Engineering	3	1	0	4		
21CSC101T	Object Oriented Design and Programming	2	1	0	3		
21CYM101T ¹	Environmental Science*	1	0	0	0		
21PDM102L ¹	General Aptitude*	0	0	2	0		
21LEM101T ¹	Constitution of India	1	0	0	0		
Total Credits						21	

Semester – III							
Course Code	Course Title	Hours / Week				C	
		L	T	P			
21MAB201T	Transforms and Boundary Value Problems	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		
21CSC203P ¹	Advanced Programming Practice	3	1	0	4		
21LEM201T ¹	Professional Ethics	1	0	0	0		
21PDM201L ¹	Verbal Reasoning	0	0	2	0		
Total Credits						23	

Semester – IV							
Course Code	Course Title	Hours / Week				C	
		L	T	P			
21MAB204T	Probability and Queueing Theory	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		
21PDH209T ¹	Social Engineering	2	0	0	2		
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						23	

Semester – V							
Course Code	Course Title	Hours / Week				C	
		L	T	P			
21MAB302T	Discrete Mathematics	3	1	0	4		
21CSC301T	Formal Language and Automata	3	0	0	3		
21CSC302J	Computer Networks	3	0	2	4		
21CSC307T	Deep Learning in Gaming and Application	2	1	0	3		
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						21	

Semester – VI							
Course Code	Course Title	Hours / Week				C	
		L	T	P			
21CSS303T	Data Science	2	0	0	2		
21CSC306J	Software Engineering Perspectives in Computer Game Development	2	0	2	3		
21CSC304J	Compiler Design	2	0	2	3		
E	Professional Elective – III				3		
E	Professional Elective – IV				3		
O	Open Elective – II				3		
21CSP302L ¹							