Bachelor of Technology in 'Computer Science and Engineering- (2020-21)

Sem	Semester Course Code, Course Name (L-T-P)Credits						GP	Community Services	Hrs. Per week			Credits
									L	T	P	
1	MAL151 Engg Maths-I (3-0-2)4	CSL106 FOCP-I (2-0-4)4	CHL150 Engg Chemistry (2-0-2)3	CLL101 Effective Communication-I (2-1-0)2.5	MEP110 Engineering Graphics & Drawing (1-0-4)3	CSL110 Problem Solving and Design Thinking (2-0-2)3		CSR118 GP 1 Credit	CSS101 CS-I (70 Hrs)	12	1	14	19.5+1 =20.5
2	MAL152 Engg Maths-II (3-0-2)4	CSL108 FOCP-II (2-0-4)4	PYL150 Engineering Physics (3-0-2)4	CLL102 Effective Communication-II (2-1-0)2.5	MEL150 Basic of Mechanical & Civil Engg. (2-0-2)	ECL110 Basic of Electrical & Electronics Engineering (2-0-2)3		CSR119 GP 1 Credit	CSS102 CS-II (70 Hrs) 2 Credits	14	1	12	20.5+3 =23.5
Summer	Community Service (Remaining Hours)												
3	CSL209 Data Structures (3-0-2)4	ECL255 DE & CA (3-0-2)4	CSL240 Computer Networks (3-0-2)4	CSL223 Discrete Mathematics (3-0-0)3	Program Elective - I (2-0-4)4	CSV201 Skill Development* (1-0-2)2		CSR218 GP 1 Credit	CSS201 CS-III	15		12	21+1 =22
4	CSL422 Cyber Security (3-0-2)4	CSL214 DBMS (3-0-2)4	CSL230 Analysis and Design of Algorithms (3-0-2)4	Program Elective-2 (2-0-4)4	SML300 Entrepreneurship (3-0-0)3	Open Elective – 1* (MOOC) (3-0-0)3		CS219 GP 1 Credit	CSS202 CS-IV (140 Hrs)** 2 Credit	17		10	22+3 =25
Summer	CST201 Industrial Training/internship												2
5	CSL236 Introduction to AI & ML / CSL242 AI for Games (3-0-2)4	CSL303 Operating System (3-0-2)4	Program Elective-3 (2-0-4)4	Program Elective-4 (2-0-4)4	Open Elective – 2* (MOOC) (3-0-0)3	CLL120 HVPE (2-0-0-)2		CSR318 GP 1 Credit	CSS301 CS-V	15		12	21+1 =22
6	CSL229 SEPM (3-0-2)4	Program Elective-5 (2-0-4)4	Program Elective-6 (2-0-4)4	CSL318 Theory of Computation (3-0-2)4	Open Elective-3 (3-0-0)3	CLP300 Campus to Corporate (1-0-0)1	CSC301 Seminar 1 Credit	CSR319 GP 1 Credit	CSS302 CS-VI (140 Hrs**) 2 Credit	14		12	21+3 =24
Summer	CST301 Industrial Training												03
7	Program Elective-7 (2-0-4)4	Program Elective-8 (2-0-4)4	CSD401 Project # 1 4 Credits	Open Elective – 4* (MOOC) (3-0-0)3	CHL100 EVS (3-0-0)3	Foreign Language (3-0-0)3			CSS401 CS-VII	13		8	21
8	SML*** Liberal Arts (3-0-0-)	Open Elective – 5* (MOOC) (3-0-0)3	CSD402 Project # 2 /Internship 6 Credits						CSS402 CS-VIII (140 Hrs**) 2 Credits	6			12+2 =14
Total										106	2	80	163+14= 177

* CSV201 Skill Development (Python to be taught in Cyber Security specialization)

** Students can utilize the summer/winter break period to complete the remaining 140 Community Service hours every year.

Program Electives for each track

Tracks	Data Science	Cloud Computing	Full Stack	Game Tech	Cyber Security of Forensics	Blockchain	AI & ML	Other Electives
Program Elective-1	CSL 225 Programming for Data Science	CSL225 Programming for Data Science	CSL273 Enterprise Web Applications	CSL243 Game Design & Asset Creation	CSL 281 Secure Communication and Cryptography	CSL239 Mathematics of Modern Cryptography	CSL 225 Programming for Data Science and AI	MAL270 Numerical Methods
Program Elective-2	CSL227 Applied Computational Statistics	CSL238 Introduction to Cloud Computing	CSL274 Middleware Frameworks and ORM	CSL245 Programing for Games	CSL 283 Secure Coding and Vulnerabilities	CSL247 Intro. to blockchain technologies	CSL227 Applied Computational Statistics	CSL223 Web Development Technologies
Program Elective-3	CSL234 Data Engineering	CSL337 Cloud Architecture	CSL276 No SQL Databases	CSL244 Advanced Programming for Games	CSL 284 Digital Forensics and Malware Analysis	CSL355 Bitcoin and Cryptocurrency Technologies	CSL347 Applied Artificial Intelligence and Expert Systems	MAL280 Linear Algebra and its Applications
Program Elective-4	CSL232 Business Intelligence and Data Visualization	CSL338 Virtualization & Cloud Computing	CSL253 Web Frameworks	CSL343 Designing Human Computer Interfaces	CSL 383 Network security	CSL356 Smart Contracts	CSL348 Reinforcement Learning	MAL260 Probability and Statistics
Program Elective-5	CSL313 Machine Learning	CSL339 Big Data on Cloud	CSL371 Mobile Application Development	CSL246 Cross Platform Game Development	CSL387 Web and Mobile Security	CSL357 Blockchain for Cyber Security	CSL349 Artificial Intelligence for Robotics	
Program Elective-6	CSL311 Big Data	CSL346 Artificial Intelligence & Machine Learning on Cloud	CSL373 Devops	CSL341 AR Development	CSL385 Risk Analysis and Assessment	CSL358 Blockchain Technology in Web Development	CSL312 Deep Learning	
Program Elective-7	CSL316 Introduction to Image Processing and Recognition	CSL445 Cloud Application Development & Deployment	CSL311 Big Data	CSL345 VR Development	CSL384 Cloud Security Essentials	CSL449 Security and Privacy for Big Data Analytics	CSL447 Computer Vision	
Program Elective-8	CSL312 Deep Learning	CSL446 Cloud Security	CSL374 Micro service Based Applications	CSL342 XR Studio	CSL382 Blockchain	CSL455 Cloud Infrastructure and Services	CSL448 Computational Linguistics and Natural Language Processing	