

# Integrated Master of Technology in Computer Science and Engineering (Collaboration with Virtusa)

## School of Computer Science and Engineering

Programme Credit Structure		Credits				IACSI202	Digital Logic and Computer Design	3	0	2	4
University Core Courses		72				IACSI203	Advanced Computer Architecture and Organization	3	1	0	4
Professional Core Courses		80									
Professional Elective Courses		28				IACSI204	Database Systems Design	3	0	2	4
Open Elective Courses		20				IACSI205	Operating System Fundamentals	3	0	2	4
Total Graded Credit Requirement		200				IACSI206	Internet and Web Programming	2	0	4	4
						IACSI301	Microprocessors and Microcontrollers	3	0	2	4
University Core Courses		72				IACSI302	Data Communication and Computer Networks	3	0	2	4
		L	T	P	C						
IACHY102	Engineering Chemistry	3	0	2	4						
IAPHY101	Engineering Physics	3	0	2	4	IACSI303	IoT and Embedded Systems	3	0	2	4
IAMAT101	Multivariable Calculus and Differential Equations	3	0	2	4	IACSI304	Cryptography and Cyber Security	3	0	2	4
						IACSI305	Artificial Intelligence and Machine Learning	3	0	2	4
IAMAT201	Applied Linear Algebra	3	1	0	4						
IAMAT202	Discrete Mathematics and Graph Theory	3	1	0	4	IACSI306	Software Engineering Principles and Practices	3	0	2	4
IAMAT203	Probability and Statistics	3	0	2	4	IACSI307	Front End Design and Testing	3	0	2	4
IAEEE101	Basic Electrical and Electronics Engineering	3	0	2	4	IACSI308	Formal Languages and Automata Theory	3	1	0	4
IACSE101	Problem Solving Using Python	0	0	4	2	IACSI309	Advanced Server Side Programming	3	0	2	4
IACSE102	Problem Solving Using Java	0	0	4	2						
IACSE201	Structured and Object-Oriented Programming	2	0	4	4	IACSI401	Cloud Computing Technologies	3	0	2	4
						IACSI402	Application Development and Deployment Architecture	3	0	2	4
IASTS101	Qualitative and Quantitative Skills Practice I	3	0	0	1	IACSI403	Software Application Architecture	3	1	0	4
IASTS102	Qualitative and Quantitative Skills Practice II	3	0	0	1	Professional Elective Courses		28			
IASTS201	Qualitative and Quantitative Skills Practice III	3	0	0	1	IACSI310	Natural Language Processing	3	0	2	4
IASTS202	Qualitative and Quantitative Skills Practice IV	3	0	0	1	IACSI311	Foundations of Blockchain Technology	3	0	2	4
IAFLC100	Foreign Language	1	0	2	2	IACSI312	Blockchain Architecture	3	1	0	4
IAHUM101	India Studies	1	0	0	1	IACSI313	GPU Architectures and Programming	3	1	0	4
IACHY101	Environmental Sciences	2	0	0	2	IACSI314	Software Defined Networking	3	1	0	4
IAHSM100	Humanities, Social Science and Management	3	0	0	3	IACSI404	Deep Learning	3	0	2	4
						IACSI405	MLOPs	3	0	2	4
IAENG101	Technical English Communication	3	0	2	4	IACSI406	Gen AI and Large Language Models	3	0	2	4
IACSI399	Summer Industrial Internship	0	0	4	2						
IACSI498	Project - I	0	0	16	8	IACSI407	Agentic AI	3	0	2	4
IACSI499	Project - II / Capstone	0	0	20	10	IAMD1405	Machine Learning for Data Science	3	0	2	4
IAENG100	Effective English Communication (NCC)	0	0	4	2	IAMD1406	Distributed Systems	3	1	0	4
IAEXC100	Extracurricular Activities (NCCM)	0	0	4	2	IAMD1407	Exploratory Data Analysis	3	0	2	4
						IAMD1408	Statistical Inference	3	0	2	4
Professional Core Courses		80				IAMD1409	Predictive Analytics	3	1	0	4
IAMAT204	Complex Variables and Integral Transforms	3	1	0	4	IAMD1410	Healthcare Data Analytics	3	1	0	4
						IAMD1411	Financial Data Analytics	3	0	2	4
IACSI101	Data Structures and Algorithms	3	0	2	4	IAMD1412	Advanced Data Visualization Techniques	3	0	2	4
IACSI201	Design and Analysis of Algorithms	3	0	2	4						
						IAMD1413	Advanced Data Compression Techniques	3	0	2	4
						IAMD1414	Computer Vision	3	0	2	4

**Open Elective Courses**

**20**

Engineering | Sciences | Humanities | Social Sciences | Economics | Finance | Management