

Integrated Master of Technology in Software Engineering

School of Computer Science Engineering and Information Systems

Programme Credit Structure	Credits			IASWE208	Software Architecture and Design	3	1	0	4
University Core Courses	72			IASWE301	Full Stack Web Development	3	0	2	4
Professional Core Courses	80			IASWE302	Object Oriented Analysis and Design	3	0	2	4
Professional Elective Courses	28			IASWE303	Software Testing	3	0	2	4
Open Elective Courses	20			IASWE304	Software Project Management	3	1	0	4
Total Graded Credit Requirement	200			IASWE305	Network and Information Security	3	0	2	4
				IASWE306	User Interface Design and Development	3	1	0	4
University Core Courses	72	L	T	P	C				
IACHY102	Engineering Chemistry	3	0	2	4				
IAPHY101	Engineering Physics	3	0	2	4				
IAMAT101	Multivariable Calculus and Differential Equations	3	0	2	4				
IAMAT201	Applied Linear Algebra	3	1	0	4				
IAMAT202	Discrete Mathematics and Graph Theory	3	1	0	4				
IAMAT203	Probability and Statistics	3	0	2	4				
IAEEE101	Basic Electrical and Electronics Engineering	3	0	2	4				
IACSE101	Problem Solving Using Python	0	0	4	2				
IACSE102	Problem Solving Using Java	0	0	4	2				
IACSE201	Structured and Object-Oriented Programming	2	0	4	4				
IASTS101	Quantitative Skills Practice I	3	0	0	1				
IASTS201	Quantitative Skills Practice II	3	0	0	1				
IASTS102	Qualitative Skills Practice I	3	0	0	1				
IASTS202	Qualitative Skills Practice II	3	0	0	1				
IAFLC100	Foreign Language	1	0	2	2				
IAHUM101	India Studies	1	0	0	1				
IACHY101	Environmental Sciences	2	0	0	2				
IAHSM100	Humanities, Social Science and Management	3	0	0	3				
IAENG101	Technical English Communication	3	0	2	4				
IASWE399	Summer Industrial Internship	0	0	4	2				
IASWE498	Project - I	0	0	16	8				
IASWE499	Project - II / Capstone	0	0	20	10				
IAENG100	Effective English Communication (NCC)	0	0	4	2				
IAEXC100	Extracurricular Activities (NCCM)	0	0	4	2				
Professional Core Courses	80			IASWE401	System Design	3	1	0	4
IASWE101	Digital Logic and Microprocessor	3	0	2	4				
IASWE102	Software Engineering	3	1	0	4				
IASWE201	Requirements Engineering and Management	3	1	0	4				
IASWE202	Data Structures and Algorithms	3	0	2	4				
IASWE203	Computer Architecture and Organization	3	1	0	4				
IASWE204	Operating Systems	3	0	2	4				
IASWE205	Artificial Intelligence	3	0	2	4				
IASWE206	Database Systems	3	0	2	4				
IASWE207	Computer Networks	3	0	2	4				
				Professional Elective Courses		28			
				IASWE310	Soft Computing	3	1	0	4
				IASWE311	Machine Learning	3	0	2	4
				IASWE312	Natural Language Processing	3	0	2	4
				IASWE313	Computer Vision	3	0	2	4
				IASWE314	Deep Learning	3	0	2	4
				IASWE315	Reinforcement Learning	3	0	2	4
				IASWE316	Software Configuration Management	3	1	0	4
				IASWE402	Blockchain Technologies	3	0	2	4
				IASWE403	Cyber Security	3	0	2	4
				IASWE404	Big Data Analytics	3	0	2	4
				IASWE405	Quantum Computing	3	1	0	4
				IASWE406	Embedded Systems and IoT	3	0	2	4
				IASWE407	Software Design Patterns	3	1	0	4
				IASWE408	Formal languages and Automata theory	3	1	0	4
				IASWE409	Advanced Software Engineering	3	1	0	4
				IASWE410	Industry 5.0 and Software Systems	3	0	2	4
				IASWE411	Cloud-Native Engineering	3	0	2	4
				IASWE412	Software Engineering Process	3	1	0	4
				IASWE413	Agentic AI	3	0	2	4
				IASWE414	Gen AI and Large Language Models	3	0	2	4
				IASWE415	Software Construction and Maintenance	3	1	0	4
				IASWE416	Robotic Process Automation	3	0	2	4
				Open Elective Courses		20			
				Engineering Sciences Humanities Social Sciences Liberal Arts Economics Finance Management					