



FACULTY OF  
ENGINEERING AND  
TECHNOLOGY



2024 - 25

# M.Sc. Computer Science

Programme Structure

<b>Division</b>	Faculty of Engineering and Technology
<b>School Name</b>	School of Computer Science & Engineering
<b>Department Name</b>	Department of Computer Science and Applications
<b>Programme Name</b>	M.Sc. Computer Science

## Course Basket

Course Type	Description
Programme Core	Courses dealing with foundations, depth and breadth of the major in which a student is admitted at MIT-WPU
Programme Electives	Open electives under the Programme allow students to specialise in a particular area connected to their major.
University Core	Courses that reflect the core MITWPU values and the mission of Life Transformation of students.
University Electives	Multidisciplinary courses across the faculties at MIT-WPU and outside the Programme core.

## Credit Distribution

Course Basket		% Credit Allotment	Credits Assigned
Programme core		35.2	31
Programme electives		18.2	16
Programme research	Break up of research credits	36.37% Total Credits	32 Total Credits
	Research Paper Writing	2.27	2
	Mini Project	6.82	6
	MOOC	4.55	4
Internship		22.73	20
University core	Research Methodology	4.55	04 (first semester)
University core	Peace + Yoga	5.68	05 (02+02+01) *
Total		100	88

Semester	Course Type	Course Name / Course Title	Total Credits
I	Programme Major	Advanced Java	5
I	Programme Major	Advanced Operating System	4
I	Programme Major	Network Security	4
I	Program Capstone Project, Problem-Based Learning, Seminar and Internships	Mini Project 1	2
I	University Core	Scientific Studies of Mind, Matter, Spirit and Consciousness	2
I	University Core	Yoga	1
I	University Core	Research Methodology	4
		Total:	22

II	Programme Major	Algorithm Design Strategies	4
II	Programme Major	Python Programming	4
II	Programme Capstone Project, Problem Based Learning, Seminar and Internships	Mini Project 2	2
II	Programme Elective 1	PE1 - Cyber Security	4
II		PE1 - Artificial Intelligence	
II		PE1 - Introduction to Blockchain Technology	
II		PE1 – Agile Methodology	
II	Programme Elective 2	PE2 - Information System Audit	4
II		PE2 - Big Data Analytics and Data Visualization	
II		PE2 - Internet of Things	
II		PE2 – Theory of Computer Science	

Semester	Course Type	Course Name / Course Title	Total Credits
II	Programme Capstone Project, Problem Based Learning, Seminar and Internships	Research Paper Writing	2
II	University Core	Peacebuilding: Global Initiatives	2
		Total:	22

III	Programme Major	Angular Programming	3
III	Programme Major	Cloud Computing	3
III	Programme Major	Machine Learning	4
III	Programme Capstone Project, Problem Based Learning, Seminar and Internships	Mini Project 3	2
III	Programme Electives	PE3 - Android Programming	4
III		PE3 - Next Generation Databases	
III		PE3 - DevOps	
III		PE3 - Software Testing and Quality Assurance	
III	Programme Electives	PE4 - Design Thinking	4
III		PE4 - Digital Image Processing	
III		PE4 - Node JS	
III		PE4 -Multimedia and Animation	
III	Programme Capstone Project, Problem Based Learning, Seminar and Internships	MOOC	2
		Total	22

Semester	Course Type	Course Name / Course Title	Total Credits
IV	Programme Capstone Project, Problem-Based Learning, Seminar and Internships	Full-time Industrial Training	20
IV	Programme Capstone Project, Problem-Based Learning, Seminar and Internships	MOOC	2
		Total:	22

## Elective Tracks

Semester	Course Type	Course Name / Course Title
II	Programme Elective - I	PE1 - Cyber Security
II	Programme Elective - I	PE1 - Artificial Intelligence
II	Programme Elective - I	PE1 - Introduction to Blockchain Technology
II	Programme Elective - I	PE1 – Agile Methodology
II	Programme Elective - II	PE2 - Information System Audit
II	Programme Elective - II	PE2 - Big Data Analytics and Data Visualization
II	Programme Elective - II	PE2 - Internet of Things
II	Programme Elective - II	PE2 – Theory of Computer Science
III	Programme Elective - III	PE3 - Digital Forensic
III	Programme Elective - III	PE3 - Next Generation Databases
III	Programme Elective - III	PE3 - DevOps
III	Programme Elective - III	PE3 - Software Testing and Quality Assurance
III	Programme Elective - IV	PE4 - Design Thinking
III	Programme Elective - IV	PE4 - Digital Image Processing
III	Programme Elective – IV	PE4 - Node JS
III	Programme Elective - IV	PE4 –Multimedia and Animation

\*Modifications to the programmes and courses are contingent upon adherence to university guidelines and procedures. Any proposed changes must undergo a thorough review process, including consultation with relevant academic departments, approval from the appropriate administrative bodies, and compliance with accreditation standards.

Additionally, consideration will be given to feedback from students, faculty, and other stakeholders to ensure that modifications align with the overall educational objectives and mission of the university. The implementation of any approved changes will be communicated transparently to the university community, and appropriate measures will be taken to facilitate a smooth transition for all affected parties.