



FACULTY OF
ENGINEERING AND
TECHNOLOGY



2024 - 25

MCA Science

Programme Structure

Division	Faculty of Engineering and Technology
School Name	School of Computer Science & Engineering
Department Name	Department of Computer Science and Applications
Programme Name	MCA 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

		% Credit Allotment	Credit Assigned
Program core		39.78%	35
Program electives		18.18%	16
Program research	Break up of research credits	-	4 total credits
	Mini project	2.27%	2
	Research Paper Writing	2.27%	2
Full Time Industrial Internship		27.27%	24
University core	Research methodology	4.54%	04(first semester)
University core	Peace + Yoga	5.69%	05 (02+02+01)*
Total		100	88

Semester	Course Type	Course Name / Course Title	Total Credits
I	Programme Major	Data Communication and Networking	3
I	Programme Major	Java Programming	4
I	Programme Major	Mini Project I	2
I	Programme Major	Relational Database Management System	4
I	University Core	Scientific Studies of Mind, Matter, Spirit and Consciousness	2
I	University Core	Yoga	1
I	University Core	Research Methodology	4
		Total:	20

II	Programme Major	Advanced Java	4
II	Programme Major	Data Structures	4
II	Programme Major	Python Programming	4
II	Programme Capstone Project, Problem-Based Learning, Seminar and Internships	Research Paper Writing	2
II	Programme Elective 1	PE1 – Advanced Software Development Methodologies	4
II		PE1 - Cloud Computing	
II	Programme Elective 2	PE2 - DevOps	4
II		PE2 – Software Testing and Quality Assurance	
II	University Core	Peacebuilding: Global Initiatives	2
		Total:	24

Semester	Course Type	Course Name / Course Title	Total Credits
III	Programme Major	Artificial Intelligence and Machine Learning	3
III	Programme Major	Design and Analysis of Algorithms	3
III	Programme Major	Emerging Web Technology	4
III	Programme Capstone Project, Problem-Based Learning, Seminar and Internships	Mini Project II	2
III	Programme Elective	PE3 – Blockchain Technology	4
III	Programme Elective	PE3- Big Data Analytics	
III	Programme Elective	PE4 – Introduction to NoSQL Databases	4
III	Programme Elective	PE4 – Internet of Things	
III	Programme Capstone Project, Problem-Based Learning, Seminar and Internships	MOOC	2
		Total:	22

IV	Programme Capstone Project, Problem-Based Learning, Seminar and Internships	Full time Industrial Internship	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 – Advanced Software Development Methodologies
II	Programme Elective - I	PE1 - Cloud Computing
II	Programme Elective - II	PE2 - DevOps
II	Programme Elective - II	PE2 – Software Testing and Quality Assurance
III	Programme Elective - III	PE3 – Blockchain Technology
III	Programme Elective - III	PE3- Big Data Analytics
III	Programme Elective - IV	PE4 – Introduction to NoSQL Databases
III	Programme Elective - IV	PE4 – Internet of Things

*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.