FACULTY OF ENGINEERING AND TECHNOLOGY

MIT-WPU

2024 - 25

B.Sc. (Computer Science)

Programme Structure

Division	Faculty of Engineering and Technology
School Name	School of Computer Science & Engineering
Department Name	Department of Computer Science and Applications
Program Name	B.Sc.(Coputer 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.

Summary for Four Years Together

Course Type	Description
Programme Foundation	34
Programme Major	48
Programme Electives	16
Programme Capstone Project/Problem-Based Learning/Seminar and Internships	32
University Core	24
University Electives	9
TOTAL	**163**

Semester	Course Type	Course Name / Course Title	Total Credits
I	University Core	Effective Communication	1
I	University Core	Critical Thinking	1
I	University Core	Environment and Sustainability	1
I	University Core	Foundations of Peace	2
I	University Core	Yoga - I	1
I	University Core	SLDP	1
I	Programme Foundation	C Programming	5
I	Programme Foundation	Computer Orgnisation	3
I	Programme Foundation	Discret Mathematics	3
I	Programme Foundation	Digital Electronics	4
		Total	**22**

Semester	Course Type	Course Name / Course Title	Total Credits
II	University Core	Advanced Excel	1
II	University Core	Financial Literacy	1
II	University Core	Yoga - II	1
II	University Core	Co-creation	1
II	University Core	Indian Constituion	1
II	University Core	IKS(General)	2
II	University Core	Sports	1
II	Programme Major	Data Structure using C	4
II	Programme Foundation	Data Base Management System	4
II	Programme Foundation	Applied Stastitics	2
II	Programme Foundation	Microprocessor	4
		Total	**22**

Semester	Course Type	Course Name / Course Title	Total Credits
III	University Core	Research Innovation Design Entrepreneurship (RIDE)	1
III	University Core	Spiritual & Cultural Heritage; Indian Experience	2
III	University Electives	UE - I	3
III	University Electives	UE-II	3
III	Programme Capstone Project/ Problem Based Learning/Seminar and Internships	Project Based Learning - I	1
III	Programme Foundation	Microcontroller	4
III	Programme Major	OOP using C++	4
III	Programme Major	Web Technologies	4
		Total	**22**

Semester	Course Type	Course Name / Course Title	Total Credits
IV	University Electives	UE-III	3
IV	University Core	Rural Immersion	1
IV	Programme Capstone Project/ Problem Based Learning/Seminar and Internships	Project Based Learning - II	1
IV	University Core	Life Transformation Skills	1
IV	Programme Foundation	IKS-2	2
IV	Programme Foundation	Number Theory and Calculus	3
IV	Programme Major	Advanced Web Technologies	4
IV	Programme Major	Operating System Concepts	2
IV	Programme Major	Data Communication and Networking	4
IV	Programme Capstone Project/ Problem Based Learning/Seminar and Internships	Lab on Python	2
		Total	**23**

Semester	Course Type	Course Name / Course Title	Total Credits
V	University Core	Managing Conflicts Peacefully: Tools and Techniques	2
V	Programme Capstone Project/ Problem Based Learning/ Seminar and Internships	Project Based Learning - III	1
V	Programme Electives	Programme Elective	4
V	Programme Major	Core Java	4
V	Programme Major	Theortical Computer Science	2
V	Programme Major	Network Security	2
V	Programme Capstone Project/ Problem Based Learning/ Seminar and Internships	Lab on Data Analytics using Python	2
V	Programme Major	Software Engineering	2
V	Programme Capstone Project/ Problem Based Learning/ Seminar and Internships	Research Paper Writing	1
		Total	**20**

Semester	Course Type	Course Name / Course Title	Total Credits
VI	Programme Capstone Project/ Problem Based Learning/ Seminar and Internships	Project Based Learning - IV	1
VI	University Core	National Academic Immersion	2
VI	Programme Electives	Programme Elective	4
VI	Programme Major	Advanced Java Programming	4
VI	Programme Major	Agile Methodology	2
VI	Programme Major	Internet of Things	2
VI	Programme Capstone Project/ Problem Based Learning/ Seminar and Internships	Mini Project I	4
		Total	**19**

Semester	Course Type	Course Name / Course Title	Total Credits
VII	Programme Electives	Programme Elective	4
VII	Programme Major	Introduction to AI and ML	4
VII	Programme Major	Mobile Application Development	4
VII	Programme Capstone Project/ Problem Based Learning/ Seminar and Internships	Mini Project II	4
VIII	Programme Electives	Programme Elective	4
VIII	Programme Capstone Project/ Problem Based Learning/ Seminar and Internships	Full Time Industrial Internship	15
		Total	**35**

List of Programme Electives

Semester	Course Type	Course Name / Course Title	Course Type
V	Programme Elective - I	Fundamentals of Cyber Security	4
V	Programme Elective - I	Introduction to Data Science	4
V	Programme Elective - I	Introduction to blockchain ecosystem	4
VI	Programme Elective - II	Cyber Law & IT Act	4
VI	Programme Elective - II	R Programmeming	4
VI	Programme Elective - II	Bitcoin Mining	4
VII	Programme Elective - III	Intellectual Property Right	4
VII	Programme Elective - III	Data Analysis and Visualisation using R	4
VII	Programme Elective - III	Blockchain Architecture	4
VIII	Programme Elective - IV	Cyber Forensics and Investigation	4
VIII	Programme Elective - IV	Big Data Technologies	4
VIII	Programme Elective - IV	Blockchain technologies	4

*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.