



FACULTY OF
SCIENCE AND
HEALTH SCIENCE



2024 - 25

B.Sc. AS & DA (Applied Statistics & Data Analytics)

Programme Structure

Division	Faculty of Science & Health Science
School Name	School of Science & Environmental Studies
Department Name	Department of Mathematics and Statistics
Programme Name	B.Sc. AS & DA (Applied Statistics & Data Analytics)

Credit Distribution

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.

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	Descriptive Statistics-I	3
I	Programme Foundation	Introduction to Probability Theory	3
I	Programme Foundation	R Programming	1
I	Programme Major	Calculus	3
I	Programme Major	Discrete Mathematics	3

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 Constitution	1
II	University Core	IKS(General)	2
II	University Core	Sports	1
II	Programme Foundation	Introduction to Number Theory	3
II	Programme Foundation	Introduction to Python	1
II	Programme Foundation	Operations Research-I	3
II	Programme Major	Continuous Distribution	3
II	Programme Major	Descriptive Statistics-II	3
II	Programme Major	Linear Algebra	3

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 (Statistical Inference)	1
III	Foundation	Introduction to Machine Learning	2
III	Programme Major	Introduction to Sampling	3
III	Programme Major	Sampling Distribution	3
III	Programme Major	Statistical Inference	3

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 (Numerical Method)	1
IV	University Core	Life Transformation Skills	1
IV	Programme Foundation	Introduction to DoE	3
IV	Programme Foundation	IKS (Programme Specific): Mathematics in India: From vedic period to modern times	2
IV	Programme Major	Numerical Method	3
IV	Programme Major	Operations Research - II	3
IV	Programme Major	Multivariate Analysis	3
IV	Programme Major	Testing of Hypothesis	3

V	University Core	Managing Conflicts Peacefully: Tools and Techniques	2
V	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Project Based Learning - III (Regression Analysis)	1
V	Programme Electives	Programme Elective	4
V	Programme Foundation	Introduction to DBMS	4
V	Programme Foundation	Introduction to Stochastic Process	4
V	Programme Major	Regression Analysis	4
V	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Project Based on DBMS	2

Semester	Course Type	Course Name / Course Title	Total Credits
VI	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Project Based Learning - IV (Time Series)	1
VI	University Core	National Academic Immersion	2
VI	Programme Electives	Programme Elective	4
VI	Programme Foundation	Data Mining Lab	1
VI	Programme Foundation	Introduction to Time Series	4
VI	Programme Foundation	Time Series Lab	1
VI	Programme Major	Introduction to Data Mining	4
VI	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Project based on Sampling methods	1

VII	Programme Electives	Programme Elective	4
VII	Programme Major	Basics of Economics	3
VII	Programme Major	Biostatistics	4
VII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Project based on Machine Learning	3
VII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Project based on Statistical Inference	4
VII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Research Methodology	6

VIII	Programme Electives	Programme Elective	4
VIII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Internship	12

Electives List

Semester	Programme Electives	Course Name / Course Title	Total Credits
V	Programme Elective - I	Deep Learning	4
V	Programme Elective - I	Real Analysis	4
V	Programme Elective - I	Demography	4
VI	Programme Elective - II	Data Analytics for HRM	4
VI	Programme Elective - II	Integral Transform	4
VI	Programme Elective - II	Statistical Computing Using R	4
VII	Programme Elective - III	Business Analytics	4
VII	Programme Elective - III	Functions of Complex Variables	4
VII	Programme Elective - III	Survey Sampling Techniques	4
VIII	Programme Elective - IV	Structural Query Language (SQL)	4
VIII	Programme Elective - IV	Lattice Theory	4
VIII	Programme Elective - IV	Econometrics	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.