MIT-WPU
॥ विश्वशान्तिर्ध्रुवं ध्रुवा ॥

FACULTY OF ENGINEERING AND TECHNOLOGY

2024 - 25

B.Tech. Civil Engineering (Smart Infrastructure & Construction)

Programme Structure

mitwpu.edu.in

Division	Faculty of Engineering and Technology
School Name	School of Engineering and Technology
Department Name	Department of Civil Engineering
Programme Name	B.Tech. Civil-Smart Infrastructure & Construction

Category-wise Credit Distribution

Category	Credits
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

Course Basket

Course Type	Description
Programme Core	Courses dealing with foundations, depth and breadth of the major in which student is admitted at MIT-WPU
Programme Electives	Open electives under the programme allow students to specialize 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	Linear Algebra and Differential Calculus	3
I	Programme Foundation	Physics	3
I	Programme Foundation	Chemistry	3
I	Programme Foundation	Engineering Graphics	3
I	Programme Foundation	Ideas and Innovation in Manufacturing	1
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	Integral Calculus	3
II	Programme Foundation	Biology for Engineers	2
II	Programme Foundation	Programming and ProblemSolving (linux based).	3
II	Programme Foundation	Basic Electrical and Electronics Engineering	3
II	Programme Major	Engineering Mechanics	3
II	Programme Major	Surveying Field Practices	2

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	Differential Equations and Transform Techniques	4
III	Programme Major	Strength of Material	3
III	Programme Major	Fluid Mechanics	3
III	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Design Thinking	2
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 Capstone Project/Problem Based Learning/Seminar and Internships	Building Planning and CAD	1
IV	Programme Foundation	Probability and Statistics	4
IV	Programme Major	Environmental Engineering 1	3
IV	Programme Major	Surveying	3
IV	Programme Major	Soil Mechanics	3
IV	Programme Major	Theory and Analysis of structures	3

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 I	4
V	Programme Major	Design of Steel Structures	3
V	Programme Major	Project Management	3
V	Programme Major	Environmental Engineering II	3
V	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Civil Engineering Software	1
V	Programme Major	Concrete Technology	2
V	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Foundation Engineering	3
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 II	4
VI	Programme Major	Design of Reinforced Concrete Structure	3
VI	Programme Major	Transportation Engineering	3
VI	Programme Major	Hydrology and Irrigation Engineering	2
VI	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Mini Project	1
VI	Programme Capstone Project/Problem Based Learning/Seminar and Internships	BIM in Civil Engineering	3
VI	Programme Foundation	Indian Knowledge System for Civil Engineering(IKS II)	2

Semester	Course Type	Course Name / Course Title	Total Credits
VII	Programme Electives	Programme Elective III	4
VII	Programme Major	Dams and Hydraulics Structures	3
VII	Programme Major	Quantity Surveying and Estimation	3
VII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Computer aided prestressed concrete design	3
VII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Capstone Project	6
VIII	Programme Electives	Programme Elective IV	4
VIII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Advanced software in Civil Engineering	2
VIII	Programme Capstone Project/Problem Based Learning/Seminar and Internships	Internship	6

*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.