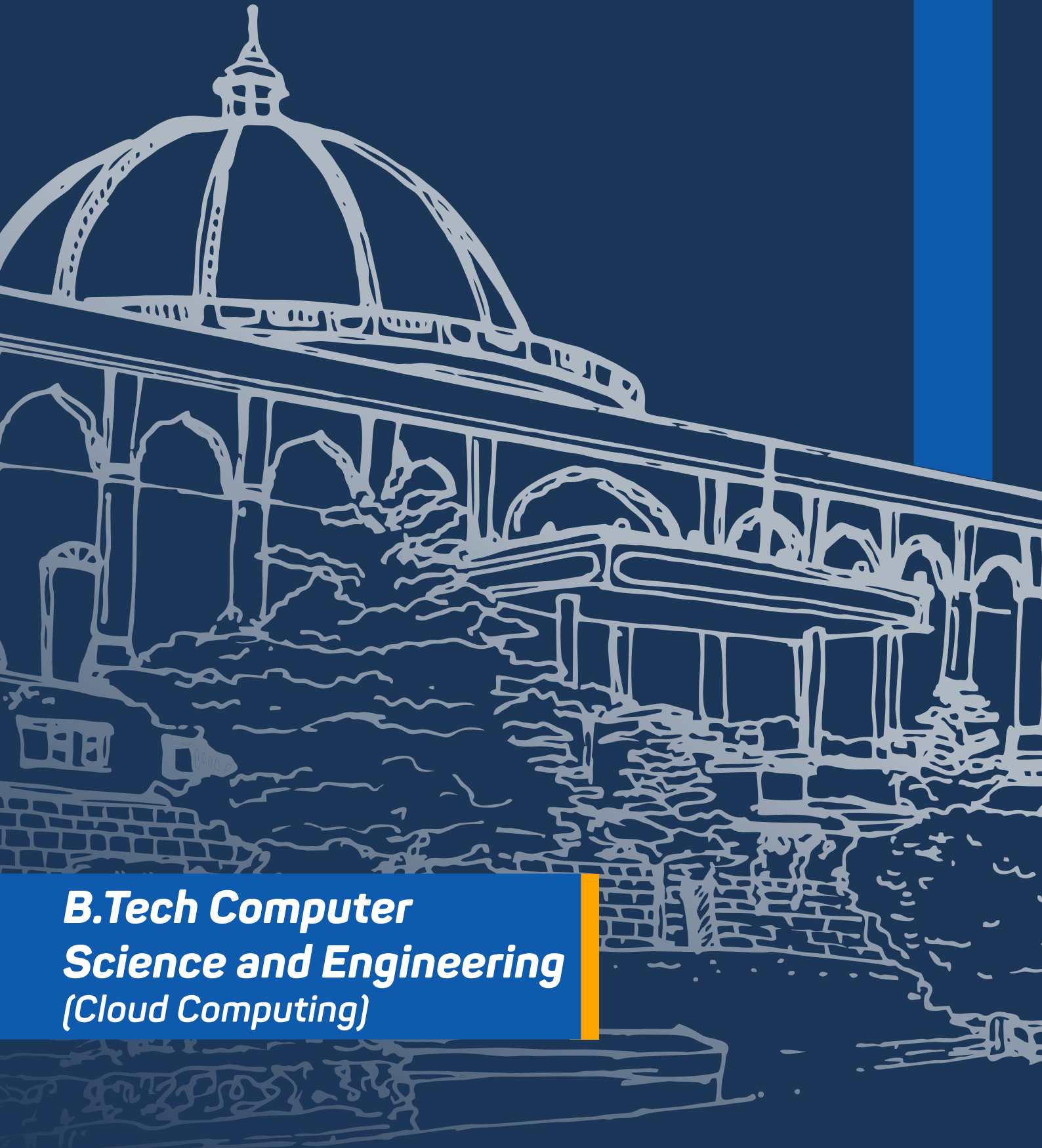




***B.Tech Computer
Science and Engineering
(Cloud Computing)***

Division	Faculty of Engineering and Technology
School Name	School of Computer Science and Engineering
Department Name	Department of Computer Engineering and Technology
Programme Name	B.Tech Computer Science and Engineering (Cloud Computing)

Semester	Odd (I)	Even (II)	Total Credits
First Year	20	20	40
Second Year	22	22	44
Third Year	22	22	44
Fourth Year	22	14	36

+ + + + + + + + + + + + + + **COURSE BASKET** + + + + + + + + + + + + + +

| Course Type | Description |
|---------------------------|--|
| Programme Core [PC] | Includes Programme Foundation [PF], Programme Major [PM], and Programme Capstone Project/ Problem Based Learning/ Seminar/ Internships [PR]. |
| Programme Electives [PE] | Open electives under the programme allow students to specialise in a particular area connected to their major. |
| University Core [UC] | Courses that reflect the core MIT-WPU values and the mission of Life Transformation of students. |
| University Electives [UE] | Open electives under the programme allow students to specialise in a particular area connected to their major. |

Semester I

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|--|---------------|
| I | PF | Linear Algebra and Differential Calculus | 3 |
| I | PF | Engineering Chemistry | 3 |
| I | PF | Engineering Physics | 3 |
| I | PF | Engineering Graphics | 3 |
| I | PF | Ideas and Innovations in Manufacturing | 1 |
| I | UC | Python Programming | 2 |
| I | UC | Environment and Sustainability | 1 |
| I | UC | Yoga – I | 1 |
| I | UC | Financial Literacy | 1 |
| I | UC | Indian Constitution | 1 |
| I | UC | Sports | 1 |
| I | UC | Ability Enhancement Course | 0 |
| | | Total Credits: | 20 |

Semester II

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|--|---------------|
| II | PF | Engineering Mechanics | 3 |
| II | PF | Foundations of Programming | 4 |
| II | PF | Discrete Mathematics with Graph Theory | 3 |
| II | PR | Foundations of Computer Architecture and System Design | 4 |
| II | UC | Yoga - II | 1 |
| II | UC | Co-creation | 1 |
| II | UC | Indian Knowledge System | 2 |
| II | UC | Foundations of Peace | 2 |
| | | Total Credits: | 20 |

Semester - III

| Semester | Course Typew | Course Name / Course Title | Total Credits |
|----------|--------------|--|---------------|
| III | PF | Calculus and Numerical Methods | 4 |
| III | PF | Data Structure | 3 |
| III | PF | Data Structure Laboratory | 1 |
| III | PM | Operating System | 3 |
| III | PM | Operating System Laboratory | 1 |
| III | PM | Computer Networks | 3 |
| III | PM | Computer Networks Laboratory | 1 |
| III | UC | Research Innovation Design Entrepreneurship RIDE | 1 |
| III | UC | Spiritual and Cultural Heritage: Indian Experience | 2 |
| III | UE | University Elective -I | 3 |
| | | Total Credits: | 22 |

SEMESTER - IV

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|---------------------------------------|---------------|
| IV | PR | Object Oriented Programming in C++ | 2 |
| IV | PF | Probability and Statistics | 4 |
| IV | PM | Database Management System | 3 |
| IV | PM | Database Management System Laboratory | 1 |
| IV | PF | Virtualization and Cloud Computing | 3 |
| IV | PR | Full Stack Development | 1 |
| IV | PR | Cognitive Skills | 1 |
| IV | UC | Rural Immersion | 1 |
| IV | UC | Life Realisation Program | 1 |
| IV | PF | Indian Knowledge System (Sci.& Tech.) | 2 |
| IV | UE | University Elective -II | 3 |
| | | Total Credits: | 22 |

Semester - V

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|---|---------------|
| V | PM | Theory of Computation | 3 |
| V | PF | Analysis of Algorithms | 3 |
| V | PM | Algorithms Laboratory | 1 |
| V | PM | Cloud Computing Architecture | 4 |
| V | PE | Program Elective -I | 4 |
| V | PR | Cloud Platforms | 2 |
| V | PR | Managing Conflicts Peacefully: Tools and Techniques | 2 |
| V | UC | University Elective-III | 3 |
| | | Total Credits: | 22 |

Semester - VI

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|---|---------------|
| VI | PM | Cloud Privacy and Security | 4 |
| VI | PM | Cloud Data Engineering | 4 |
| VI | PM | Containerization and Kubernetes | 4 |
| VI | PF | Cloud-Native Application Design | 1 |
| VI | PE | Program Elective –II | 4 |
| VI | PR | Mini Project using Java Programming | 1 |
| VI | PR | Competitive Coding | 1 |
| VI | PR | Seminar | 1 |
| VI | UC | National Academic Immersion | 2 |
| VI | UC | Democracy, Leadership, Governance and Public Policy | 0 |
| | | Total Credits: | 22 |

Semester - VII

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|---|---------------|
| VII | PM | Artificial Intelligence and Machine Learning Techniques | 3 |
| VII | PR | Capstone Project | 6 |
| VII | PM | Big Data Processing in Cloud | 3 |
| VII | PE | Program Elective -III | 4 |
| VII | PM | Edge Computing and Fog Computing | 3 |
| VII | PM | DevSecOps | 3 |
| | | Total Credits: | 22 |

Semester - VIII

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|----------------------------|---------------|
| VIII | PE | Program Elective -IV /MOOC | 4 |
| VIII | PR | Internship | 10 |
| | | Total Credits: | 14 |

Program Electives

| Semester | Course Type | Course Name / Course Title | Total Credits |
|----------|-------------|--|---------------|
| V | PE - I | Bigdata Technologies | 4 |
| V | PE - I | Computer Graphics and 3D Modelling | 4 |
| V | PE - I | Wireless and Mobile Networks | 4 |
| V | PE - I | Augmented Reality and Virtual Reality | 4 |
| VI | PE - II | IoT Application in Cloud | 4 |
| VI | PE - II | Digital Enterprise Management | 4 |
| VI | PE - II | GCP (Google Cloud Platform) | 4 |
| VI | PE - II | Natural Language Processing (NLP) | 4 |
| VI | PE - II | Product, Services and IT Service Management | 4 |
| VII | PE - III | Data Visualization and Business Intelligence (BI) | 4 |
| VII | PE - III | Disaster Recovery and Business Continuity in Cloud | 4 |
| VII | PE - III | Quantum Computing in Cloud | 4 |
| VII | PE - III | High-Performance Computing (HPC) in Cloud | 4 |
| VIII | PE - IV | Blockchain | 4 |
| VIII | PE - IV | Cloud Governance, Risk, and Compliance (GRC) | 4 |
| VIII | PE - IV | Deep Learning and Generative AI | 4 |
| VIII | PE - IV | Salesforce Development | 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.