Since 1983

MIT-WPU
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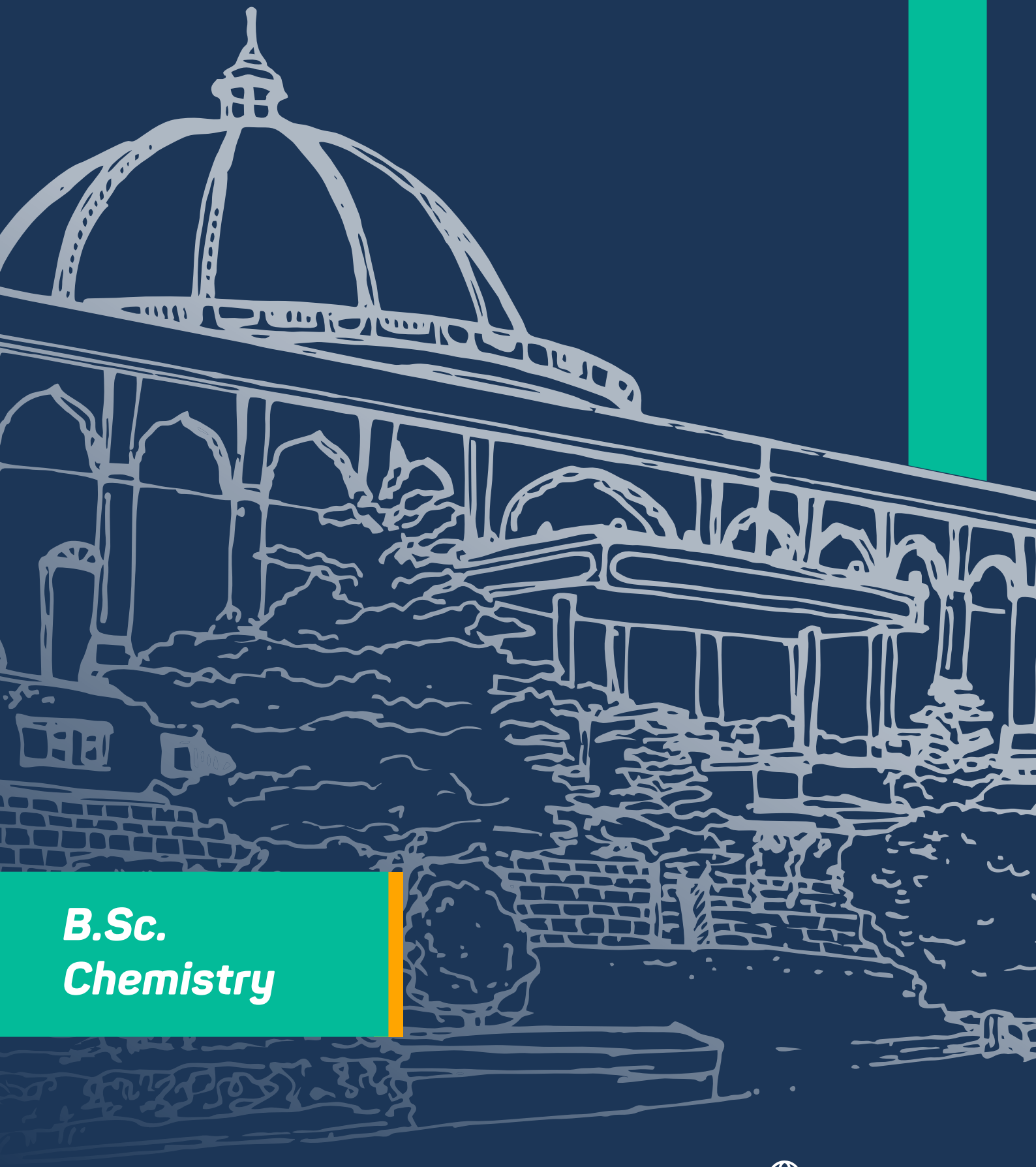
Dr. Vishwanath Karad
MIT WORLD PEACE UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS



B.Sc. Chemistry

Programme Structure

mitwpu.edu.in

Division	Faculty of Science & Health Science
School Name	School of Science & Environmental Studies
Department Name	Department of Chemistry
Programme Name	B.Sc. Chemistry (Industrial Chemistry)

Semester	Odd (I)	Even (II)	Total Credits
First Year	20	20	40
Second Year	20	21	41
Third Year	20	22	42
Fourth Year	20	22	42

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 I

Semester	Course Type	Course Name / Course Title	Total Credits
I	UC	Indian Constitution	1
I	UC	Environment and Sustainability	1
I	UC	Yoga - I	1
I	UC	Social Leadership Development Program	1
I	UC	Financial Literacy	1
I	PF	Calculus	3
I	PF	Fundamentals of Physical Chemistry	4
I	PF	Physics	3
I	PF	Physical Chemistry Lab – I	2
I	PF	Industrial Chemistry	3
		Total Credits:	**20**

Semester - II

Semester	Course Type	Course Name / Course Title	Total Credits
II	University Core	Yoga - II	1
II	University Core	Co-creation	1
II	University Core	AI for everyone	2
II	University Core	Foundation of Peace	2
II	University Core	Indian Knowledge System (General)	2
II	University Core	Sports	1
II	Program Foundation	Atomic structure, Periodicity of elements & Chemical bonding	3
II	Program Foundation	Biochemistry	2
II	Program Foundation	Biochemistry Lab	1
II	Program Foundation	Differential Equations	3
II	Program Foundation	Inorganic Chemistry Lab -I	2
		Total Credits:	**20**

Semester - III

Semester	Course Type	Course Name / Course Title	Total Credits
III	UC	Spiritual and Cultural heritage: Indian Experience	2
III	UC	Research Innovation Design Entrepreneurship (RIDE)	1
III	UE	University Electives - I	3
III	PF	Material Chemistry	3
III	PF	Organic & Material Chemistry Lab	3
III	PF	Synthetic Organic Chemistry	4
III	PM	Surface and colloidal Chemistry	4
		Total Credits:	**20**

Semester - IV

Semester	Course Type	Course Name / Course Title	Total Credits
IV	UC	Rural Immersion	1
IV	UC	Life Transformation Skills	1
IV	UE	University Electives - II	3
IV	PF	Environmental Chemistry	3
IV	PM	Advanced Organic Chemistry	3
IV	PM	Organic Chemistry Lab I	2
IV	PM	Polymer Chemistry	3
IV	PM	Polymer Chemistry Lab	2
IV	Program Capstone Project/ Seminar and Internships	Seminar	1
IV	Program Foundation	Indian Knowledge system II (Indian Metallurgy)	2
		Total Credits:	**21**

Semester - V

Semester	Course Type	Course Name / Course Title	Total Credits
V	UC	Managing Conflicts Peacefully: Tools and Techniques	2
V	UE	University Electives - III	3
V	PE	Program Elective - I	4
V	PM	Coordination and Organometallic Chemistry	3
V	PM	Inorganic Chemistry Lab -II	2
V	PM	Molecular Spectroscopy	3
V	PM	Physical Chemistry Lab II	2
V	PM	Programming and Problem Solving	1
		Total Credits:	**20**

Semester - VI

Semester	Course Type	Course Name / Course Title	Total Credits
VI	UC	National Academic Immersion Program	2
VI	PE	Program Elective - II	4
VI	PM	Analytical Chemistry	3
VI	PM	Fundamentals of Computational Chemistry	1
VI	PM	Organic Spectroscopy	3
VI	PM	Organic Chemistry Lab II	2
VI	Program Capstone Project/ Seminar and Intern-ships	Mini Project	7
		Total Credits:	**22**

Semester - VII

Semester	Course Type	Course Name / Course Title	Total Credits
VII	PE	Program Elective - III	4
VII	PM	Analytical 1.1/ Organic 2.1/Polymer 3.1	4
VII	PM	Analytical 1.2 /Organic 2.2/Polymer 3.2	4
VII	PM	Analytical 1.3 /Organic 2.3/Polymer 3.3	4
VII	Program Capstone Project/ Seminar and Internships	Research Methodology for Chemistry	4
		Total Credits:	**20**

Semester - VIII

Semester	Course Type	Course Name / Course Title	Total Credits
VIII	PE	Program Elective - IV	4
VIII	Program Capstone Project/ Seminar and Internships	Internship/Research Project	14
VIII	Program Capstone Project/ Seminar and Internships	Molecular Modeling and Drug Design	2
VIII	PM	Artificial Intelligence in Chemistry	2
		Total Credits:	**22**

*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.