



JSPM UNIVERSITY PUNE

Recognized by UGC u/s 2 (f) of UGC Act 1956 and enacted by the
State Government of Maharashtra - JSPM University Act, 2022 (Mah.IV of 2023)

JSPM University Pune
Faculty of Science and Technology
School of Basic and Applied Sciences



NEP aligned Curriculum Structure

for

B.Sc (Physics)

(Effective from AY: 2025-26)



JSPM University Pune

FACULTY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BASIC AND APPLIED SCIENCES

COURSE STRUCTURE (NEP 2020 Aligned)

W. E. F

2025-2026

RELEASE DATE

01/07/2025

FIRST-YEAR BACHELOR OF SCIENCE
(PHYSICS)

REVISION NO.

0.0

SEMESTER I (LEVEL 4.5)

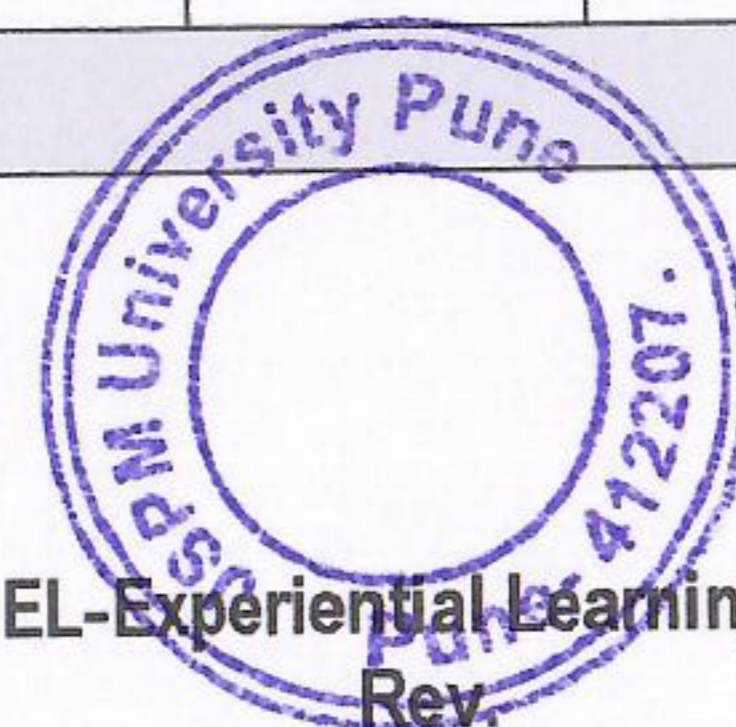
COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS								TOTAL	CREDITS
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)				PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)			
			L	T	P	EL	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTER EXAMINATION (100 / 50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)		
							T1 (30 Marks)	T2 (30 Marks)	Assign-ments (40 Marks)							
PSMC	250GMAB03_01	Foundations of Differential and Integral Calculus	2	1	-	-	30	30	40	100	-	-	-	-	100	3
PCC	250GPHB01_01	Waves and Optics	3	0	-	-	30	30	40	100	-	-	-	-	100	3
IOC	-	Interdisciplinary Open Course	2	-	-	-	30	30	40	100	-	-	-	-	100	2
SEC	250GPHB02_01	Python for Physicists	2	-	2	-	-	-	-	-	50	50	50	50	100	3
VSC	230IDCB01_01	Design Thinking and Creativity	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5
AEC (HSMC)	230UENB01_01	Effective Communication Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2
IKS	250UIKB02_01	Wisdom through Ancient Indian History	2	-	-	-	30	30	40	50	-	-	-	-	50	2
VEC/EEC (HSMC)	231GCEB02_01	Environment and sustainability	2	-	-	-	30	30	40	50	-	-	-	-	50	2
LC	250GPHB03_01	Mechanics and Optics Lab	-	-	4	-	-	-	-	-	50	50	-	-	50	2
LLC	231UPYB02_01	Mindfulness and Wellbeing	1	-	-	2	-	-	-	-	-	-	50	-	50	1.5
TOTAL			16	1	8	4									700	22

L-Lecture

T-Tutorial

EL-Experiential Learning

P-Practical Session (Laboratory)



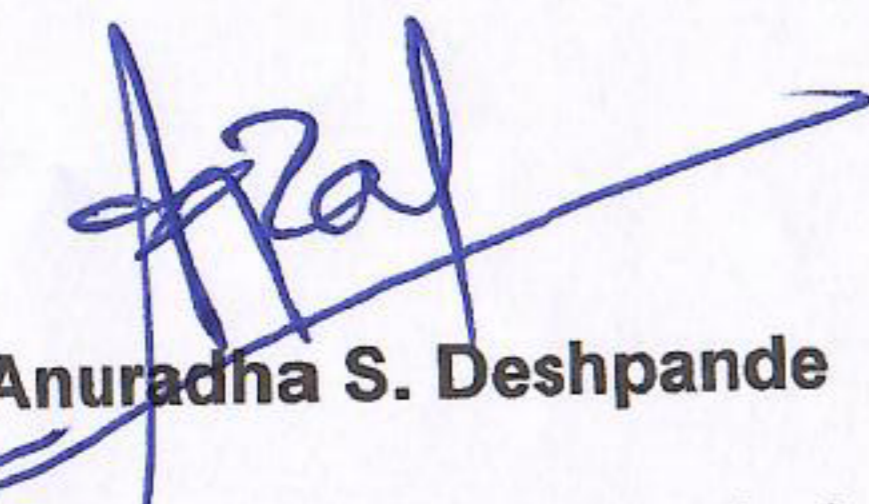
*IoC - Interdisciplinary Open Course, SEC - Skill Enhancement Course, VSC - Vocational Skill Course, ECS - Effective Communication Skills
 *IKS - Indian Knowledge systems, VEC/ EEC - Value Education Course/ Environment Education Course, LLC - Liberal Learning Course

Interdisciplinary Open Course				
I	Course Code	250GCHB51_01	230VBCB04_01	230GCSB151_01
	Course Name	Fundamentals of Chemistry	Basics of Accounting	AI for Everyone
II	Course Code	250GMAB02_02	230VBCB11_02	230GCSB154_02
	Course Name	Introduction to Statistical Methods	Introduction to Cost Accounting	Basics of Machine Learning
III	Course Code	230GCSB23_03	230VBCB15_03	230GCSB157_03
	Course Name	Fundamentals of Data Science	Finance for Non-Finance	Fundamentals of Web Development

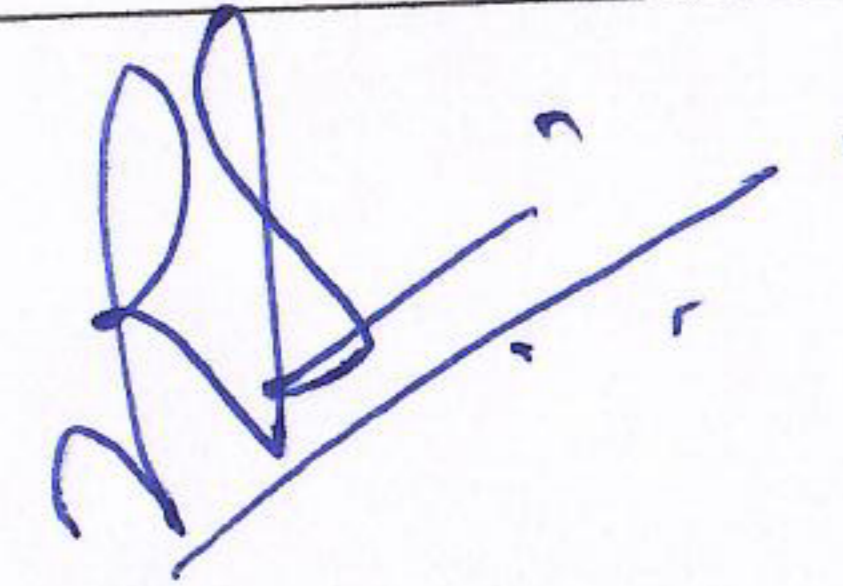


Dr. Anand Joshi

Program Coordinator (Physics), SBAS



Dr. Anuradha S. Deshpande
 Associate Dean (Academics)

Dr. R. S. Deshpande

Dean, Faculty of Science and Technology



Prof. B.B. Ahuja

Vice Chancellor, JSPM University Pune

Vice Chancellor
 JSPM University
 Pune



JSPM University Pune

FACULTY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BASIC AND APPLIED SCIENCES

FIRST-YEAR BACHELOR OF SCIENCE
(Physics)

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2025-2026

RELEASE DATE

01/07/2025

REVISION NO.

0.0

SEMESTER II (LEVEL 4.5)

EXAMINATION SCHEME AND MARKS

COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS								TOTAL	CREDITS	
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)				PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)				
			L	T	P	EL	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTER EXAMINATION (100 / 50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)			
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
PCC	250GPHB04_02	Applied Mechanics	2		-		30	30	40	100	-	-	-	-	50	2	
PCC	250GPHB05_02	Heat and Thermodynamics	3	-	-	2	30	30	40	100	-	-	-	-	100	3.5	
MDM	-	Multi-Disciplinary Minor (MDM)	3	-	-	-	30	30	40	100	-	-	-	-	100	3	
IOC	-	Interdisciplinary Open Course	2	-	-	-	30	30	40	100	-	-	-	-	100	2	
SEC	240GCHB30_02	Cheminformatics	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
AEC (HSMC)	230UENB02_02	Communicative Proficiency Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
VEC/EEC (HSMC)	230UPYB03_02	Ethics and Moral Values	2	-	-	-	30	30	40	50	-	-	-	-	50	1	
LC	250GPHB06_02	Heat and Thermodynamics Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1.5	
LLC	231UPYB01_02	Yoga and Fitness	-	-	2	2	-	-	-	-	-	-	50	-	50	2	
IITP/FP/CEP	250GPHB07_02	Internship/Field Project/Community Engagement Program	4 to 6 weeks				-	-	-	-	-	-	-	-	50	50	2
TOTAL			15	-	8	4									700	22	



Multi-Disciplinary Minor (MDM) Course					
Sem.	Specialization	Web Development	Robotics	3D Printing	Embedded Systems
II	Course Code	230GSCB101_02	230GMEB86_02	230GMEB86_02	230GETB103_02
	Course Name	Internet and Networking	Elements of Mechanical Engineering	Elements of Mechanical Engineering	Introduction to Electronics
	Course Code	-	-	-	230GETB104_02
	Code Name	-	-	-	Introduction to Electronics Lab
III	Course Code	230GSCB102_03	230GRAB90_03	230GMEB91_03	230GETB67_03
	Course Name	Basics of HTML and CSS	Basics of Robotics	Computer Aided Design (CAD)	Digital System Design using VHDL/FPGA
	Course Code	230GSCB103_03	230GRAB91_03	230GMEB92_03	230GETB68_03
	Course Name	Basics of HTML and CSS Lab	Basics of Robotics Lab	Computer Aided Design (CAD) Lab	Digital System Design using VHDL/FPGA Lab
IV	Course Code	230GSCB104_04	230GRAB92_04	230GRAB86_04	230GETB69_04
	Course Name	Web Technology using PHP	Introduction to Sensors and Actuators	3D Printing: Introduction & Processes	Introduction to Microcontrollers
	Course Code	230GSCB105_04	230GRAB93_04	230GRAB87_04	230GETB70_04
	Course Name	Web Technology using PHP Lab	Introduction to Sensors and Actuator Lab	3D Printing: Introduction & Processes Lab	Introduction to Microcontrollers Lab
V	Course Code	230GSCB106_05	230GRAB94_04	230GRAB88_05	230GETB71_05
	Course Name	JAVA Frameworks for Web Development	Industrial Robots	Application of 3D Printing	Fundamentals of Embedded C
	Course Code	230GSCB107_05	230GRAB96_05	-	230GETB72_05
	Course Name	JAVA Frameworks for Web Development Lab	Simulation of Industrial Robots	-	Fundamentals of Embedded C Lab
VI	Course Code	230GSCB108_06	230GRAB95_06	230GRAB89_06	230GETB73_06
	Course Name	Adv Web Development Technologies	Basics of Robot Programming	Product Design and Development	Embedded System
	Course Code	230GSCB109_06	-	-	-
	Course Name	Adv Web Development Technologies Lab	-	-	-



Sem.	Interdisciplinary Open Course			
I	Course Code	250GCHB51_01	230VBCB04_01	230GCSB151_01
	Course Name	Fundamentals of Chemistry	Basics of Accounting	AI for Everyone
II	Course Code	250GMAB02_02	230VBCB11_02	230GCSB154_02
	Course Name	Introduction to Statistical Methods	Introduction to Cost Accounting	Basics of Machine Learning
III	Course Code	230GCSB23_03	230VBCB15_03	230GCSB157_03
	Course Name	Fundamentals of Data Science	Finance for Non-Finance	Fundamentals of Web Development

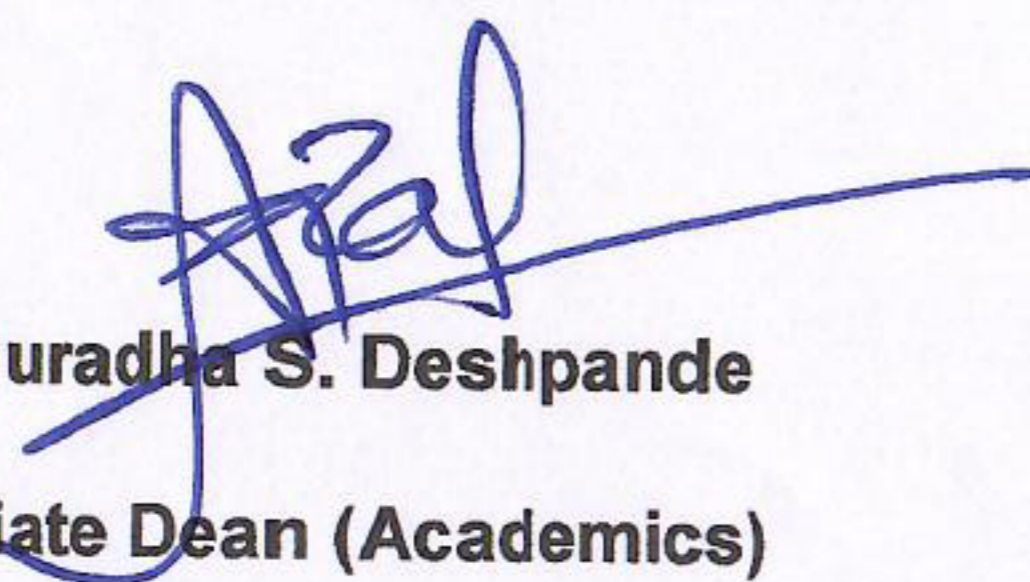
Note: A **Certificate** will be awarded if a student exits after first year. For "Exit" at the end of First Year the student must complete a total of 8 additional credits.

- An internship / OJT of 8 - 10 weeks (4 credits) over and above semester 2 internship of minimum 4 weeks.
- Additional one Course of 4 credits (Course offered will be Vocational Skill Course (VSC) or Skill Enhancement Course (SEC) or a mini project).



Dr. Anand Joshi

Program Coordinator (Physics), SBAS



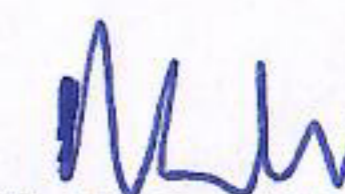
Dr. Anuradha S. Deshpande

Associate Dean (Academics)




Dr. R. S. Deshpande

Dean, Faculty of Science and Technology



Prof. B.B. Ahuja

Vice Chancellor, JSPM University Pune

**Vice Chancellor
JSPM University
Pune**

Rev.