



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 Computational Sciences



NEP aligned Curriculum Structure

for

BCA (Honours or Honours with Research)

(Effective from AY: 2024-25)



JSPM University Pune

FACULTY OF SCIENCE AND TECHNOLOGY

SCHOOL OF COMPUTATIONAL SCIENCE

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2024

REVISION NO.

0.0 (NEP)

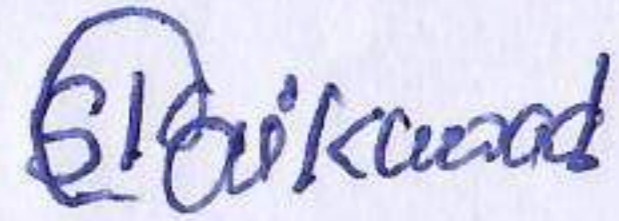
FIRST YEAR BACHLOR OF COMPUTER APPLICATION

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)	Assignments (40 Marks)								
BSC	230GMAB02_01	Discrete Mathematics	2	1	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	231GCAB01_01	Computer Fundamentals	3	-	-	4	30	30	40	100	-	-	-	-	100	4	
IOC	-	Interdisciplinary Open Course	2	-	-	-	30	30	40	100	-	-	-	-	100	2	
SEC	230GCAB02_01	C Programming	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	
VEC/EEC (HSMC)	230UPYB03_01	Ethics and Moral Values	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
VEC/EEC (HSMC)	230GCEB02_01	Environment and Sustainability	2	-	-	-	30	30	40	50	-	-	-	-	50	1	
LC	230GCAB18_01	Computer Fundamentals Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1.5	
LLC	231UPYB01_01	Yoga and Fitness	-	-	2	2	-	-	-	-	-	-	-	50	-	50	1.5
TOTAL			15	1	8	8									700	22	



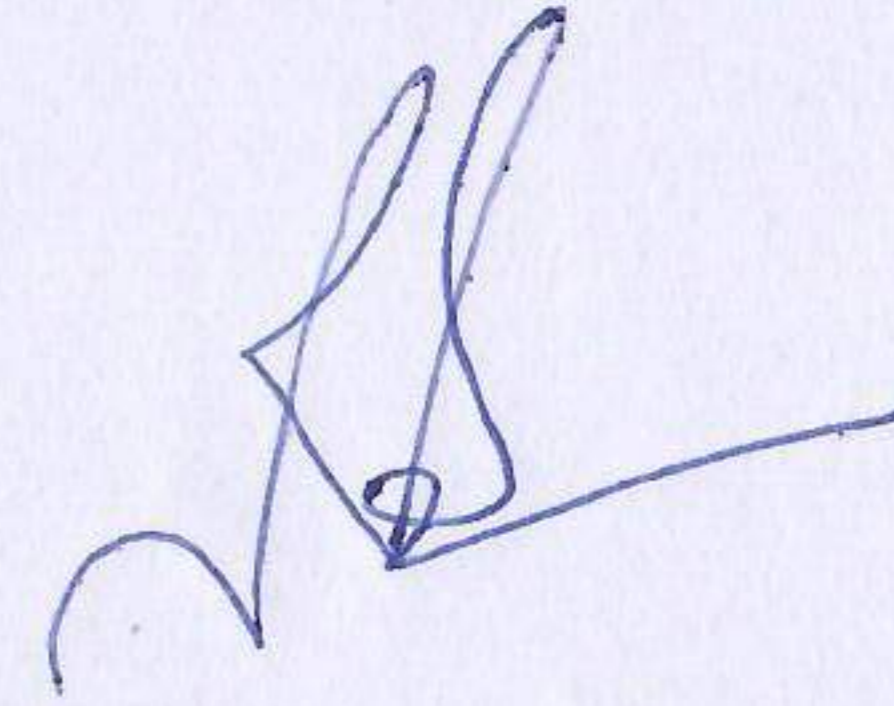
Sem.	Interdisciplinary Open Course (IOC)	
I	Course Code	240GPHB03_01
	Course Name	Semiconductor Physics
III	Course Code	240VBBB06_03
	Course Name	Introduction to Digital Marketing
IV	Course Code	230VBCB14_04
	Course Name	E-Commerce



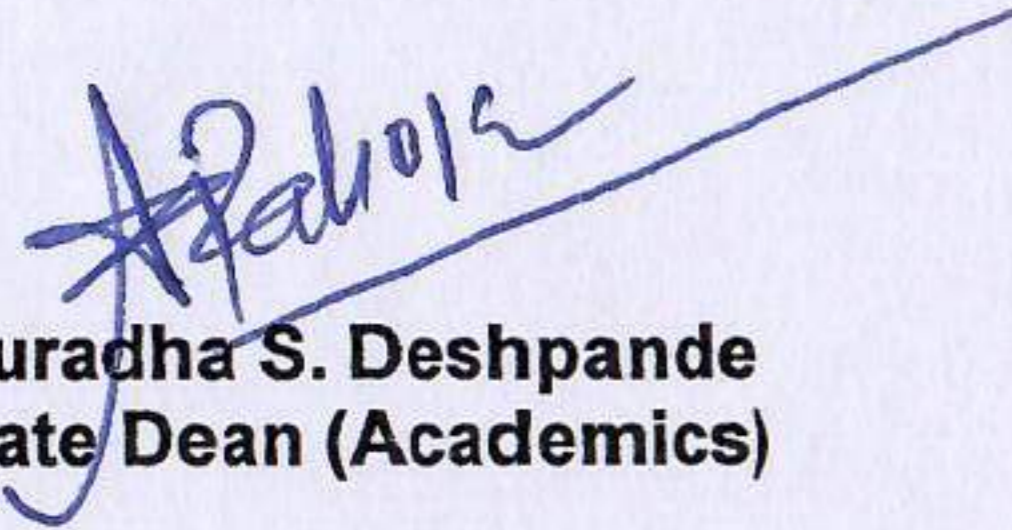
Dr. Santosh Gaikwad
Programme Coordinator, BCA



Dr. G. A. Patil
Director, School of Computational Science



Dr. R.S. Deshpande
Dean, Faculty of Science and Technology



Dr. Anuradha S. Deshpande
Associate Dean (Academics)



Prof. B.B. Ahuja
Vice Chancellor, JSPM University Pune





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FIRST YEAR BACHLOR OF COMPUTER APPLICATION

SEMESTER II (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)	Assignments (40 Marks)								
BSC	230GMAB03_02	Linear Algebra	2	1	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	231GSCB02_02	Database Management System	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
	231GCAB05_02	Operating System	2	-	-	2	30	30	40	100	-	-	-	-	50	2	
MDM	-	Multi-Disciplinary Minor	2	-	-	-	30	30	40	50	-	-	-	-	100	3	
SEC	230GCAB06_02	Programming with C++	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
AEC (HSMC)	230UENB02_02	Communicative Proficiency Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
IKS	240UHIB02_02	Introduction to Science and Technology in early India	2	-	-	-	30	30	40	50	-	-	-	-	50	1	
LC	230GSCB04_02	Database Management System Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	-	Multi-Disciplinary Minor Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1.5	
LLC	231UPYB02_02	Mindfulness and Wellbeing	1	-	-	2	-	-	-	-	-	-	50	-	50	2	
IITP/FP/CEP	230GCAB07_02	Internship/Field Project/Community Engagement Program	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
TOTAL			14	1	8	4									700	22	



Note: A Certificate will be awarded if a student exits after first year.

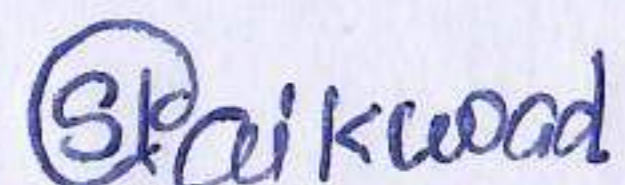
For "Exit" at the end of First Year the student must complete a total of 8 additional credits.

a) An internship / OJT of 8 - 10 weeks (4 credits) over and above semester 2 internship of minimum 4 weeks.

b) Additional one Course of 4 credits (Course offered will be Vocational Skill Course (VSC) or Skill Enhancement Course (SEC) or a mini project).

Sem.	Multi-Disciplinary Minor (MDM)	
	Specialization	IoT and Application
II	Course Code	230GETB103_02
	Course Name	Introduction to Electronics
II	Course Code	230GETB104_02
	Course Name	Introduction to Electronics Lab
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
III	Course Code	230GETB59_03
	Course Name	Sensors and Interfacing Lab
IV	Course Code	230GETB60_04
	Course Name	Foundations of IOT
IV	Course Code	230GETB61_04
	Course Name	Foundations of IOT Lab
V	Course Code	230GETB62_05
	Course Name	Wireless Technologies for IoT
V	Course Code	230GETB63_05
	Course Name	Wireless Technologies for IoT Lab
VI	Course Code	231GETB64_06
	Course Name	Industrial Internet of Things

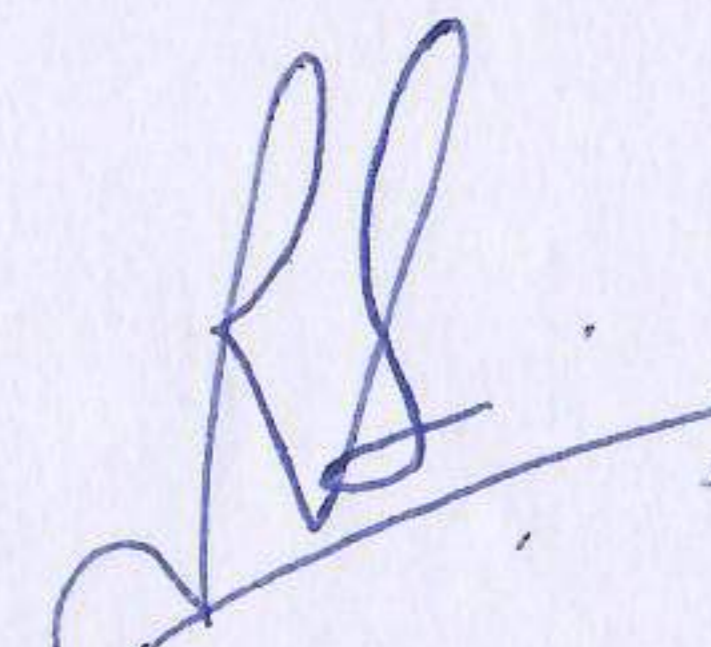
Sem.	Interdisciplinary Open Course (IOC)	
I	Course Code	240GPHB03_01
	Course Name	Semiconductor Physics
III	Course Code	240VBBB06_03
	Course Name	Introduction to Digital Marketing
IV	Course Code	240VBCB02_04
	Course Name	Introduction to E-Commerce



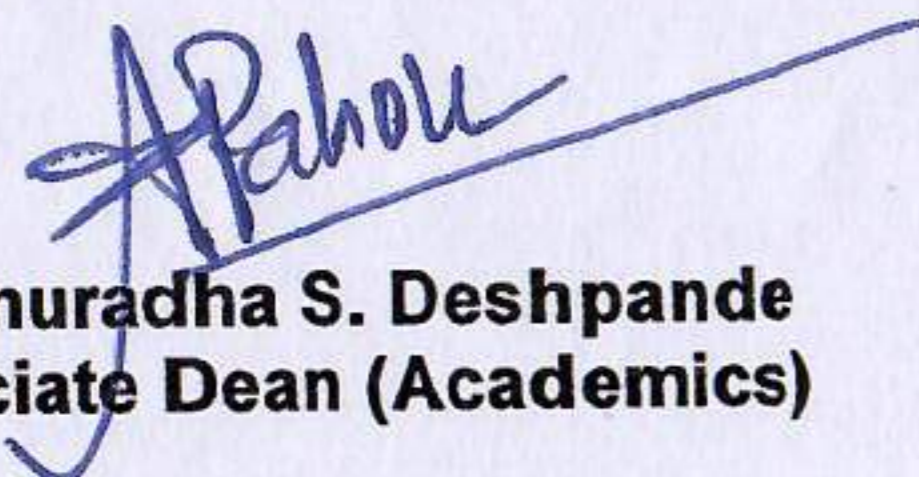
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W. E. F

2025-2026

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SECOND YEAR BACHELOR OF COMPUTER APPLICATION

SEMESTER III (LEVEL 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)	Assignments (40 Marks)							
PSMC	230GMAB10_03	Foundations of Probability and Statistics	2	1	-	-	30	30	40	100	-	-	-	-	100	3
PCC	231GCAB08_03	Introduction to Data Structures and Algorithms	2	-	-	-	30	30	40	100	-	-	-	-	50	2
	231GCAB09_03	Programming with Java	3	-	-	-	30	30	40	100	-	-	-	-	100	3
AEC (HSMC)	230UENB03_03	Soft Skill Development	1	-	2	-	30	30	40	50	-	-	-	-	50	2
VSC	230IINB02_03	Innovation	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5
MDM	-	Multi-Disciplinary Minor	2	-	-	-	30	30	40	50	-	-	-	-	50	2
IOC	-	Interdisciplinary Open Course	2	-	-	-	30	30	40	100	-	-	-	-	100	2
LC	231GCAB10_03	Introduction to Data Structures and Algorithms Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
	230GCAB11_03	Programming with Java Lab	-	-	4	-	-	-	-	-	50	50	-	-	50	2
	-	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	2
LLC	240VBBB02_03	Theater and Performing Arts	-	-	2	2	-	-	-	-	50	-	-	-	50	1.5
TOTAL			13	1	12	8									700	22

L-Lecture
Format No.: JSPMUni/ACAD/001



T-Tutorial
Rev. No.:00

P-Practical Session (Laboratory)
Rev. Date: 01/07/2025

EL-Experiential Learning
Page 1 of 2

Sem.	Multi-Disciplinary Minor (MDM)	
	Specialization	IoT and Application
II	Course Code	230GETB103_02
	Course Name	Introduction to Electronics
	Course Code	230GETB104_02
	Course Name	Introduction to Electronics Lab
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
	Course Code	230GETB59_03
	Course Name	Sensors and Interfacing Lab
IV	Course Code	230GETB60_04
	Course Name	Foundations of IOT
	Course Code	230GETB61_04
	Course Name	Foundations of IOT Lab
V	Course Code	230GETB62_05
	Course Name	Wireless Technologies for IoT
	Course Code	230GETB63_05
	Course Name	Wireless Technologies for IoT Lab
VI	Course Code	231GETB64_06
	Course Name	Industrial Internet of Things

Sem.	Interdisciplinary Open Course (IOC)	
I	Course Code	230UEEEB01_01
	Course Name	Economics
III	Course Code	240VBBB06_03
	Course Name	Introduction to Digital Marketing
IV	Course Code	240VBCB02_04
	Course Name	Introduction to E-Commerce

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SECOND YEAR BACHELOR OF COMPUTER APPLICATION

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SEMESTER IV (LEVEL 5)

COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS										C R E D I T S	
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)		T O T A L			
			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)									
PCC	231GCAB12_04	Full Stack Web Development	3	-	-	2	30	30	40	100	-	-	-	-	100	3.5		
	240GCAB20_04	Computer Networks	3	-	-	-	30	30	40	100	-	-	-	-	100	3		
AEC (HSMC)	230UENB04_04	Verbal Aptitude Through Literature	1	-	2	-	30	30	40	50	-	-	-	-	50	2		
MDM	-	Multi-Disciplinary Minor	2	-	-	-	30	30	40	50	-	-	-	-	50	2		
IOC	-	Interdisciplinary Open Course	2	-	-	-	30	30	40	100	-	-	-	-	100	2		
SEC	230GCAB14_04	Programming with Python	2	-	2	-	-	-	-	-	50	50	50	50	100	3		
LC	230GCAB15_04	Full Stack Web Development Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1		
	-	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	2		
LLC	230HFSB80_05	Health and Nutrition	1	-	-	2	-	-	-	-	-	-	50	-	50	1.5		
IITP/FP/CEP	230GCAB16_04	Internship/Field Project/Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2	
TOTAL			14	-	8	8											700	22
MLC#	---	Audit Course	1	-	-	-	-	-	-	-	-	-	50	-	50	1		

L-Lecture
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EL-Experiential Learning
Page 1 of 2

Note: A Diploma will be awarded if a student exits after second year.

For Exit at the end of second year the student must complete: (Total credits = 8)

a) An internship / OJT of 8 - 10 weeks (4 credits)

b) Additional Course 1 (4 credits) (Vocational Skill Course (VSC) / Skill Enhancement Course (SEC))

Sem.	Multi-Disciplinary Minor (MDM)	
	Specialization	IoT and Application
II	Course Code	230GETB103_02
	Course Name	Introduction to Electronics
III	Course Code	230GETB104_02
	Course Name	Introduction to Electronics Lab
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
IV	Course Code	230GETB59_03
	Course Name	Sensors and Interfacing Lab
IV	Course Code	230GETB60_04
	Course Name	Foundations of IOT
V	Course Code	230GETB61_04
	Course Name	Foundations of IOT Lab
V	Course Code	230GETB62_05
	Course Name	Wireless Technologies for IoT
VI	Course Code	230GETB63_05
	Course Name	Wireless Technologies for IoT Lab
VI	Course Code	231GETB64_06
	Course Name	Industrial Internet of Things

Sem.	Interdisciplinary Open Course (IOC)	
I	Course Code	240GPHB03_01
	Course Name	Semiconductor Physics
III	Course Code	240VBBB06_03
	Course Name	Introduction to Digital Marketing
IV	Course Code	240VBCB02_04
	Course Name	Introduction to E-Commerce

Sem.	Mandatory Learning Course (MLC [#]) Audit Course	
IV	Course Code	240GCAB91_04
	Course Name	Project Management using Agile Tool
V	Course Code	240GCAB92_05
	Course Name	German Language
VI	Course Code	230UPOB02_06
	Course Name	Introduction to Indian Constitution
VII	Course Code	240GCAB93_07
	Course Name	Software Testing using Selenium

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