



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 (CS)

(Effective from AY: 2023-24)



JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF BASIC AND APPLIED SCIENCES

COURSE STRUCTURE (NEP 2020 Aligned)

W. E. F

2023-2024

RELEASE DATE

01/07/2023

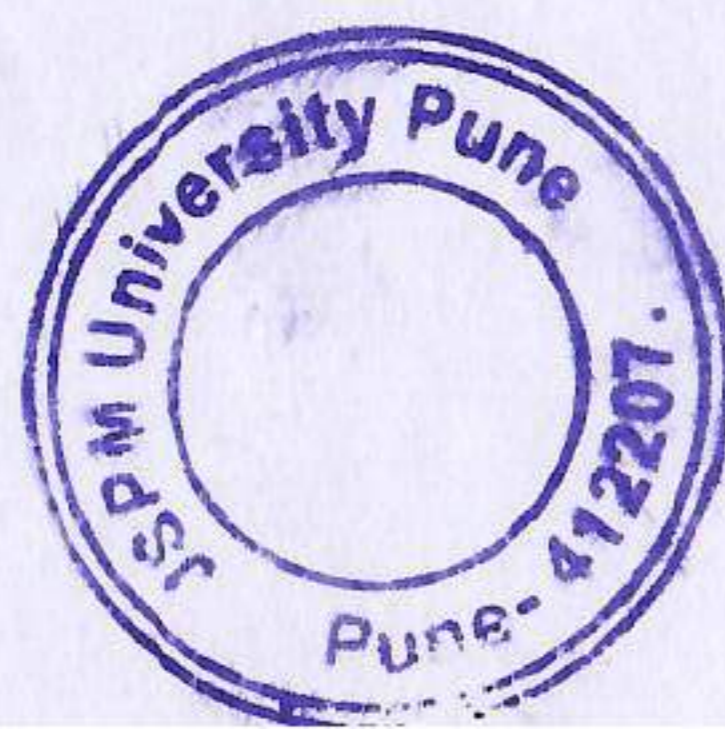
FIRST YEAR BACHELOR OF SCIENCE IN COMPUTER SCIENCE

REVISION NO.

0.0 (NEP)

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	230GMAB04_01	Applied Statistics	2	1	-	-	30	30	40	100	-	-	-	-	100	3
	230GMAB02_01	Discrete Mathematics	2	1	-	-	30	30	40	100	-	-	-	-	100	3
PCC	230GSCB01_01	Fundamentals of Computer Programming using C	3	-	-	-	30	30	40	100	-	-	-	-	100	3
	230GSCB02_01	Database Management Systems	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5
SEC	230VBCB09_01	Financial Literacy	2	-	2	-	-	-	-	-	50	50	50	50	100	3
IKS (HSMC)	230UHIB02_01	Wisdom through Ancient Indian History	2	-	-	-	30	30	40	50	-	-	-	-	50	2
VEC (HSMC)	230GCEB02_01	Environment and Sustainability	2	-	-	-	30	30	40	50	-	-	-	-	50	2
LC	230GSCB03_01	C Programming Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
	230GSCB04_01	Database Management Systems Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
LLC	230UPYB01_01	Yoga and Fitness	-	-	2	2	-	-	-	-	-	-	50	-	50	1.5
TOTAL			15	2	8	4									750	22

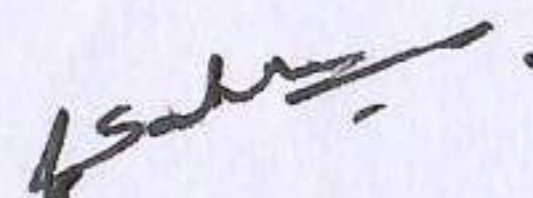


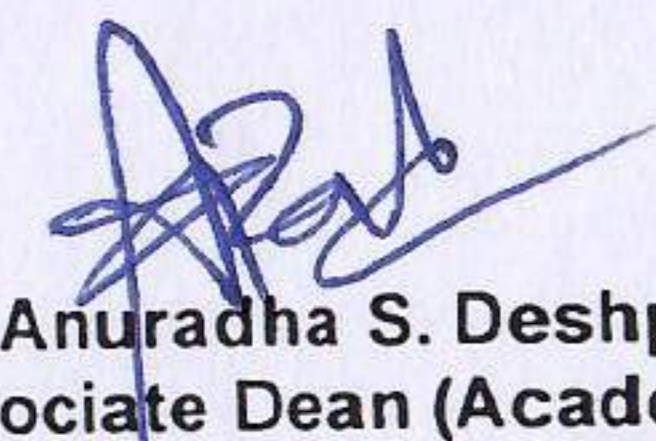
Note: A **Certificate** will be awarded if a student exits after first year.


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).

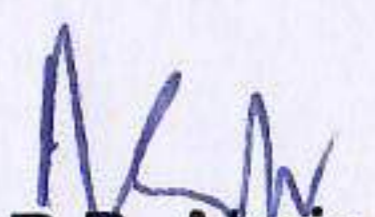

Asst. Prof. Sangram Kakade
Programme Coordinator, B.Sc. CS


Dr. Anuradha S. Deshpande
Associate Dean (Academics)


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




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


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



JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF COMPUTATIONAL SCIENCES

COURSE STRUCTURE (NEP 2020 Aligned)

W. E. F

2023-2024

RELEASE DATE

01/07/2023

REVISION NO.

0.0 (NEP)

FIRST YEAR BACHELOR OF SCIENCE IN COMPUTER SCIENCE

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 (50marks)	END SEMESTER EXAMINATION (50 marks)	CONTINUOUS INSEMESTER EVALUATION (50marks)	END SEMESTER EXAMINATION (50 marks)			
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
BSC	230GMAB05_02	Basic Calculus	2	-	-	-	30	30	40	100	-	-	-	-	100	2	
PCC	230GSCB05_02	Python Programming	3	-	-	-	30	30	40	100	-	-	-	-	100	3	
	230GSCB06_02	Relational Database Management Systems	2	1	-	-	30	30	40	50	-	-	-	-	50	3	
MDM	---	Multi-Disciplinary Minor	2	-	-	-	30	30	40	100	-	-	-	-	100	2	
SEC	230VBCB10_02	Advanced Excel	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
VSC	230IDCB01_02	Design Thinking and Creativity	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
AEC (HSMC)	230UENB01_02	Effective Communication Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
LC	230GDIB02_02	Python Programming Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
	230GSCB07_02	Relational Database Management Systems Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LLC	231UPYB02_02	Mindfulness and Well-being	1	-	-	2	-	-	-	-	-	-	50	-	50	1.5	
IITP/ FP/ CEP	230GSCB08_02	Internship / Field Project / Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
TOTAL			14	1	8	4									750	22	



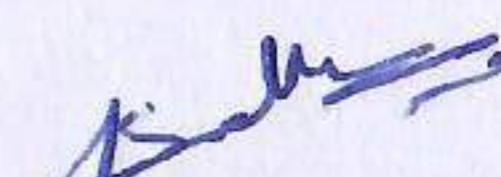
Note: A Certificate will be awarded if a student exits after first year.

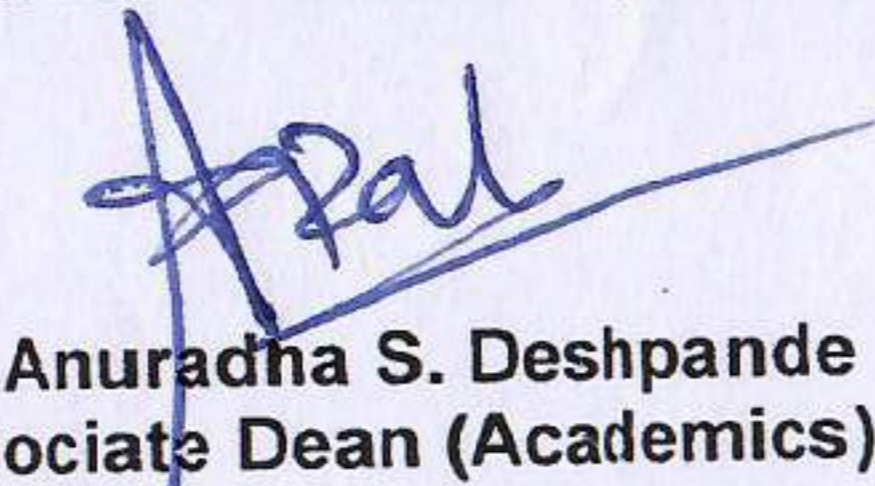
For "Exit" at the end of First Year the student must complete a total of 8 additional credits.


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


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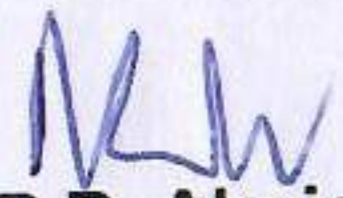
Sem.	Multi-Disciplinary Minor (MDM)	
	Specialization	IoT and Application
II	Course Code	230VBBB42_02
	Course Name	Introduction to Human Resource Management
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
	Course Code	230GETB59_03
IV	Course Name	Sensors and Interfacing Lab
	Course Code	230GETB60_04
	Course Name	Foundations of IoT
V	Course Code	230GETB61_04
	Course Name	Foundations of IoT Lab
	Course Code	230GETB62_05
VI	Course Name	Wireless Technologies for IoT
	Course Code	230GETB63_05
	Course Name	Wireless Technologies for IoT Lab
VI	Course Code	230GETB64_06
	Course Name	Industrial Internet of Things


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FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF BASIC AND APPLIED SCIENCES

COURSE STRUCTURE (NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2024

REVISION NO.

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SECOND YEAR BACHELOR OF SCIENCE (COMPUTER SCIENCE)

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)							
BSC	230GMAB03_03	Linear Algebra	2	1	-	-	30	30	40	100	-	-	-	-	100	3
PCC	230GSCB09_03	Data Structures Using C	3	-	-	2	30	30	40	100	-	-	-	-	100	3.5
	230GSCB10_03	Foundations of Software Engineering	2	-	-	-	30	30	40	50	-	-	-	-	50	2
AEC	230UENB02_03	Communicative Proficiency Skills	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	230GCAB06_03	Programming with C++	2	-	2	-	-	-	-	-	50	50	50	50	100	3
LC	230GSCB11_03	Data Structure using C Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	2
	---	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	1.5
LLC	230HFSB80_03	Health and Nutrition	1	-	-	2	-	-	-	-	-	-	50	-	50	1.5
TOTAL			15	1	8	8									700	22





JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF COMPUTATIONAL SCIENCES

SECOND YEAR BACHELOR OF SCIENCE (COMPUTER SCIENCE) –
(Transfer Case-Raisoni University)

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

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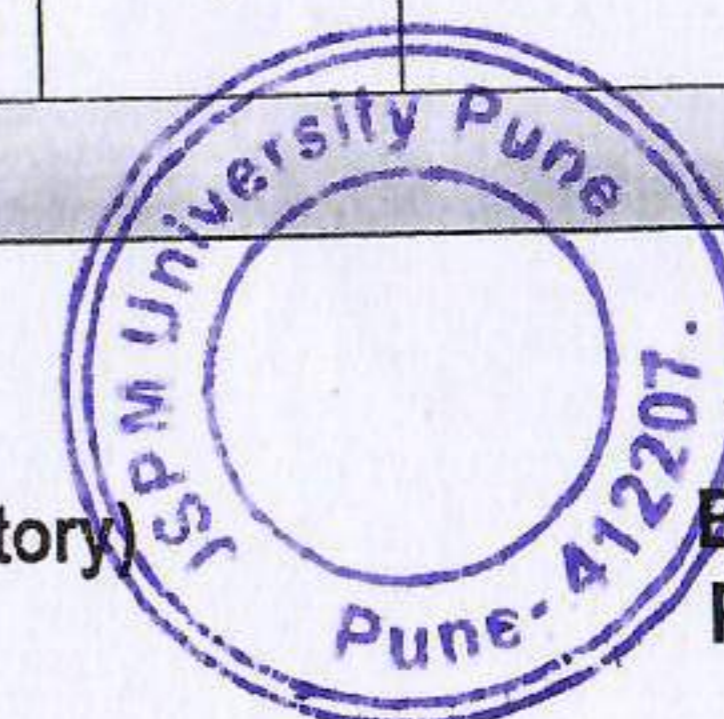
01/07/2024

REVISION NO.

0.0 (NEP)

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)								
BSC	230GMAB03_03	Linear Algebra	2	1	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	230GSCB09_03	Data Structures Using C	3	-	-	2	30	30	40	100	-	-	-	-	100	3.5	
	230GSCB10_03	Foundations of Software Engineering	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
AEC	230UENB02_03	Communicative Proficiency Skills	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	240GDIB02_03	Problem Solving using Python Programming	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
SEC	230VBCB10_03	Advanced Excel	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
SEC	230GCAB06_03	Programming with C++	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
LC	230GSCB11_03	Data Structure using C Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	2	
	---	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	1.5	
LLC	231HFSB80_03	Health and Nutrition	1	-	-	2	-	-	-	-	-	-	50	-	50	2	
HTP/ FP/ CEP	230GSCB08_03	Internship / Field Project / Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
TOTAL			16	1	8	8									800	25	





JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF COMPUTATIONAL SCIENCES

SECOND YEAR BACHELOR OF SCIENCE (COMPUTER SCIENCE) –
(Transfer Case-SPPU)

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

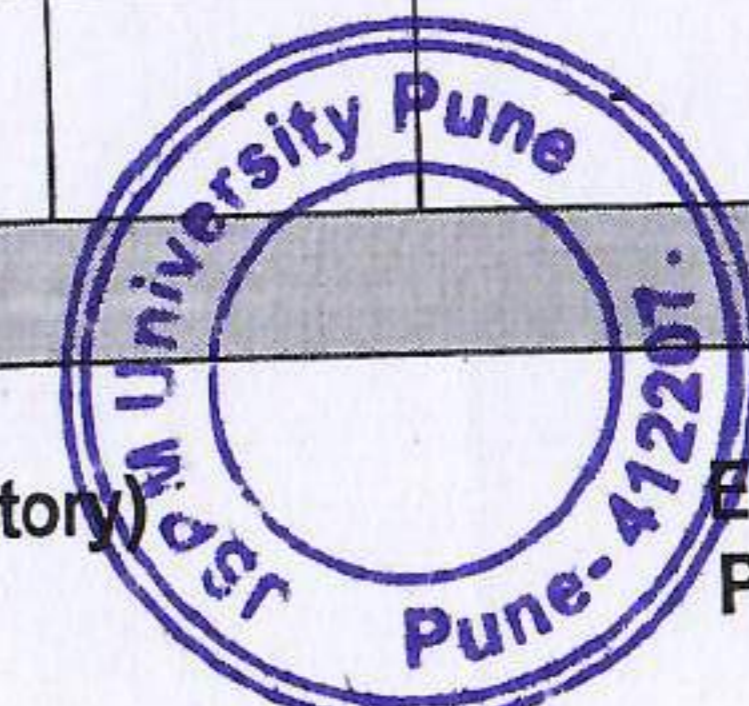
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SEMESTER III (LEVEL 5)


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)	Assignments (40 Marks)									
BSC	-230GMAB03_03	Linear Algebra	2	1	-	-	30	30	40	400	-	-	-	-	400	3	
PCC	230GSCB09_03	Data Structures Using C	3	-	-	2	30	30	40	100	-	-	-	-	100	3.5	
	230CSCB10_03	Foundations of Software Engineering	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
AEC	230UENB02_03	Communicative Proficiency Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
MDM	---	Multi-Disciplinary Minor	2	-	-	-	30	30	40	50	-	-	-	-	400	2	
IOG	---	Interdisciplinary Open Course	2	-	-	-	30	30	40	400	-	-	-	-	400	2	
SEC	230GCAB06_03	Programming with C++	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
SEC	240GDIB02_03	Problem Solving using Python Programming	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
SEC	230VBCB10_03	Advanced Excel	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
VEC	230GCEB02_03	Environment and Sustainability	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
LC	230GSCB11_03	Data Structure using C Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	2	
	---	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	1.5	
LLC	231HFSB80_03	Health and Nutrition	1	-	-	2	-	-	-	-	-	-	50	-	50	2	
HTP/ FP/ CEP	230GSCB08_03	Internship / Field Project / Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
TOTAL			17	-	12	8									800	27	



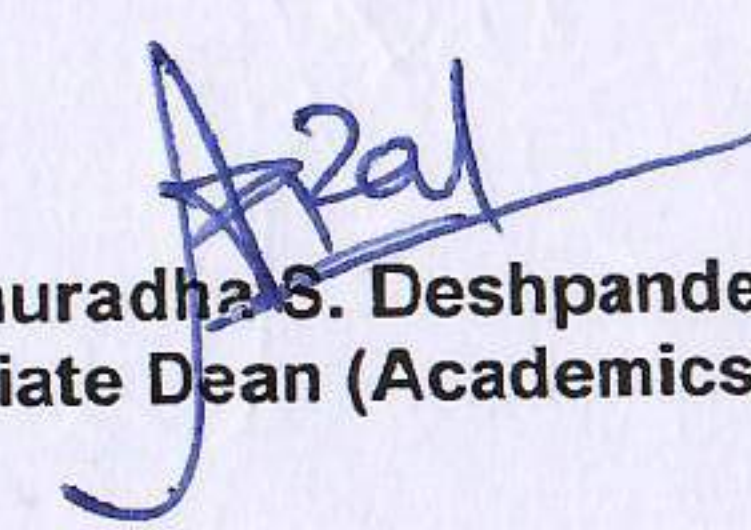
Multi-Disciplinary Minor (MDM)		
Sem.	Specialization	IoT and Application
II	Course Code	230VBBB42_02
	Course Name	Introduction to Human Resource Management
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
	Course Code	230GETB59_03
IV	Course Name	Sensors and Interfacing Lab
	Course Code	230GETB60_04
	Course Name	Foundations of IoT
	Course Code	230GETB61_04
V	Course Name	Foundations of IoT Lab
	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	230GETB64_06
	Course Name	Internet of Things Security

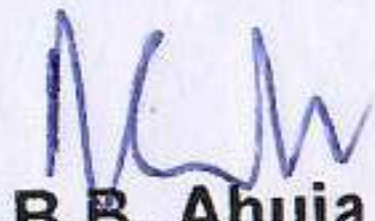
Interdisciplinary Open Course (IOC)	
Course Code	230GETB29_03
Course Name	Fundamentals of Digital Electronics
Course Code	240VBBB06_04
Course Name	Introduction to Digital Marketing
Course Code	230VBCB14_05
Course Name	E-Commerce


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SEMESTER IV (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 (50marks)	END SEMESTER EXAMINATION (50 marks)	CONTINUOUS INSEMESTER EVALUATION (50marks)	END SEMESTER EXAMINATION (50 marks)			
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
	230GSCB12_04	Operating System Concepts	3	-	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	230GCAB13_04	Computer Network and Internet Protocol	2	-	-	2	30	30	40	100	-	-	-	-	100	3	
AEC	230UENB03_04	Soft Skill Development	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
VEC	230UPYB03_04	Ethics and Moral Values	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
MDM	---	Multi-Disciplinary Minor	2	-	-	-	30	30	40	50	-	-	-	-	100	2	
IOC	---	Interdisciplinary Open Course	2	-	-	-	30	30	40	100	-	-	-	-	100	2	
VSC	230IDCB01_04	Design Thinking and Creativity	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
VSC	230IINB02_04	Innovation	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
LC	230GSCB14_04	Operating Systems Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	2	
	---	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	2	
LLC	240VBBB02_04	Theatre and Performing Art	1	-	-	2	-	-	-	-	-	-	50	-	50	1.5	
LLC	231UPYB02_04	Mindfulness and Wellbeing	1	-	-	2	-	-	-	-	-	-	50	-	50	1.5	
IITP/FP/CEP	230GSCB15_04	Internship/ Field Project/ Community Engagement Programme	(4 to 6 Weeks)				-	-	-	-	-	-	-	50	50	50	2
TOTAL			16	-	6	16									800	25	





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SCHOOL OF COMPUTATIONAL SCIENCES

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SECOND YEAR BACHELOR OF SCIENCE (COMPUTER SCIENCE)

SEMESTER IV (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)				
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							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
			3	-	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	230GSCB12_04	Operating Systems	3	-	-	-	30	30	40	100	-	-	-	-	100	3	
	230GCAB13_04	Computer Network and Internet Protocol	2	-	-	2	30	30	40	100	-	-	-	-	50	2	
AEC	230UENB03_04	Soft Skill Through Literature	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
VEG	230JPYB03_04	Ethics and Moral Values	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
MDM	---	Multi-Disciplinary Minor	2	-	-	-	30	30	40	50	-	-	-	-	100	2	
IOC	---	Interdisciplinary Open Course	2	-	-	-	30	30	40	100	-	-	-	-	100	2	
VSC	230IDCB01_04	Design Thinking and Creativity	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
VSC	230IINB02_04	Innovation	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
LC	230GSCB14_04	Operating Systems Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	2	
	---	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	1.5	
LLC	240VBBB02_04	Theatre and Performing Art	1	-	-	2	-	-	-	-	-	-	50	-	50	1.5	
LLC	231UPYB02_04	Mindfulness and Wellbeing	1	-	-	2	-	-	-	-	-	-	50	50	50	2	
IITP/FP/CEP	230GSCB15_04	Internship	(4 to 6 Weeks)				-	-	-	-	-	-	-	50	50	50	2
TOTAL			14	-	6	14									750	23	





JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF BASIC AND APPLIED SCIENCES

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2024

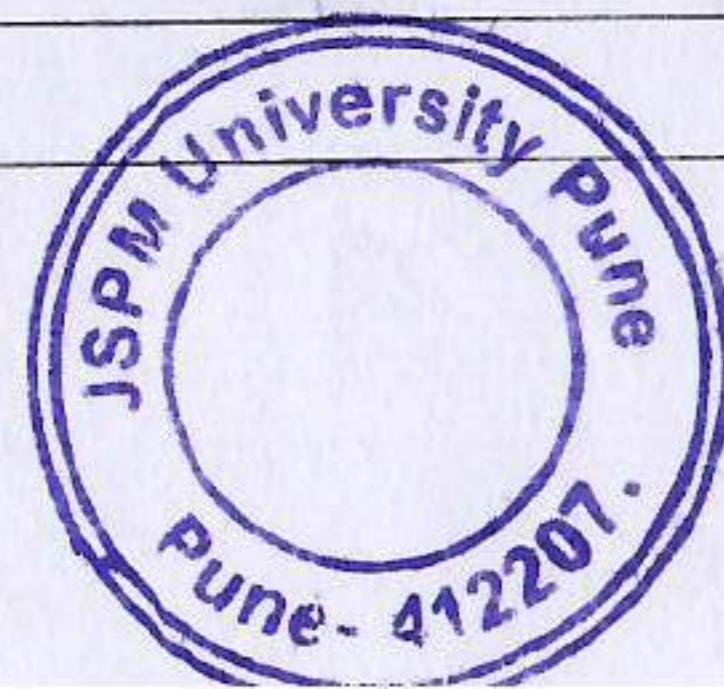
SECOND YEAR BACHELOR OF SCIENCE IN COMPUTER SCIENCE

REVISION NO.

0.0 (NEP)

SEMESTER IV (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 (50marks)	END SEMESTER EXAMINATION (50 marks)	CONTINUOUS INSEMESTER EVALUATION (50marks)	END SEMESTER EXAMINATION (50 marks)			
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
PCC	230GSCB12_04	Operating System Concepts	3	-	-	-	30	30	40	100	-	-	-	-	100	3	
	231GCAB13_04	Computer Network and Internet Protocol (NPTEL)	3	-	-	-	25			75	-	-	-	-	100	3	
AEC	230UENB03_04	Soft Skill Development	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
VEC	230UPYB03_04	Ethics and Moral Values	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	
VSC	230IINB02_04	Innovation	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
LC	230GSCB14_04	Operating System Concepts Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
	---	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	2	
LLC	240VBBB02_04	Theatre and Performing Arts	-	-	2	2	-	-	-	-	-	-	50	-	50	1.5	
IITP/FP/CEP	230GSCB15_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	



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 a total of 8 additional credits.

a) An internship / OJT of 8 - 10 weeks (4 credits) over and above semester 4 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	230VBBB42_02
	Course Name	Introduction to Human Resource Management
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
	Course Code	230GETB59_3
IV	Course Name	Sensors and Interfacing Lab
	Course Code	230GETB60_04
	Course Name	Foundations of IoT
V	Course Code	230GETB61_04
	Course Name	Foundations of IoT Lab
	Course Code	230GETB62_05
	Course Name	Wireless Technologies for IoT
VI	Course Code	230GETB63_05
	Course Name	Wireless Technologies for IoT Lab
	Course Code	230GETB64_06
	Course Name	Industrial Internet of Things

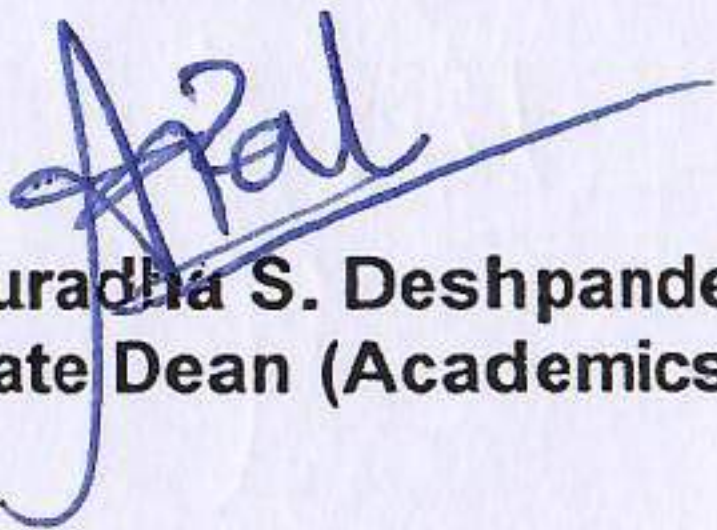
Interdisciplinary Open Course (IOC)	
Course Code	230GETB29_03
Course Name	Fundamentals of Digital Electronics
Course Code	240VBBB06_04
Course Name	Introduction to Digital Marketing
Course Code	230VBCB14_05
Course Name	E-Commerce

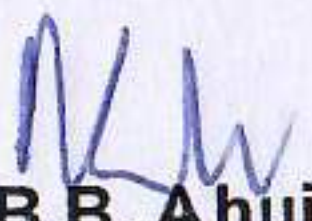
Mandatory Learning Course (MLC#) Audit Course	
Course Code	230UPOB02_04
Course Name	Introduction to Indian Constitution
Course Code	240GCAB131_05
Course Name	German Language
Course Code	240GSCB131_06
Course Name	Salesforce Admin 201
Course Code	240GSCB132_07
Course Name	Testing Automation Tools


Asst. Prof. Sangram Kakade
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Vice Chancellor, JSPM University Pune



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SCHOOL OF BASIC AND APPLIED SCIENCES

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W. E. F

2025-2026

RELEASE DATE

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THIRD YEAR BACHELOR OF SCIENCE (COMPUTER SCIENCE)

REVISION NO.

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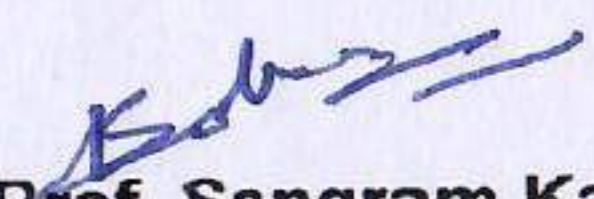
SEMESTER V (LEVEL 5.5)


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 (50marks)	END SEMESTER EXAMINATION (50 marks)		
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)							
PCC	230GSCB16_05	Java	3	-	-	2	30	30	40	100	-	-	-	-	100	3.5
	230GSCB17_05	Compiler Design	3	-	-	-	30	30	40	100	-	-	-	-	100	3
PEC	---	Program Elective Course I	3	-	-	-	30	30	40	100	-	-	-	-	100	3
AEC	230UENB04_05	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
VSC	230IESB03_05	Entrepreneurship	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5
LC	230GSCB18_05	Java Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
	---	Multi-Disciplinary Minor Lab	-	-	2	4	-	-	-	-	50	50	-	-	50	2
TOTAL			15	-	6	8									650	20
MLC#	---	Audit Course	1	-	-	-	-	-	-	50	-	-	-	-	50	1


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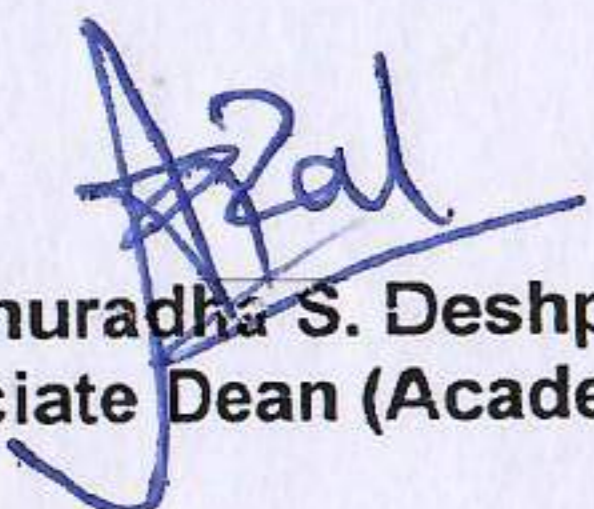
Interdisciplinary Open Course (IOC)	
Course Code	230GETB29_03
Course Name	Fundamentals of Digital Electronics
Course Code	240VBBB06_04
Course Name	Introduction to Digital Marketing
Course Code	230VBCB14_05
Course Name	E-Commerce

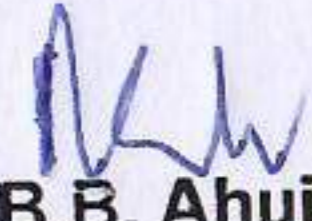
Mandatory Learning Course (MLC#) Audit Course	
Course Code	230UPOB02_04
Course Name	Introduction to Indian Constitution
Course Code	240GCAB131_05
Course Name	German Language
Course Code	240GSCB131_06
Course Name	Salesforce Admin 201
Course Code	240GSCB132_07
Course Name	Testing Automation Tools



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Dean, Faculty of Science and Technology

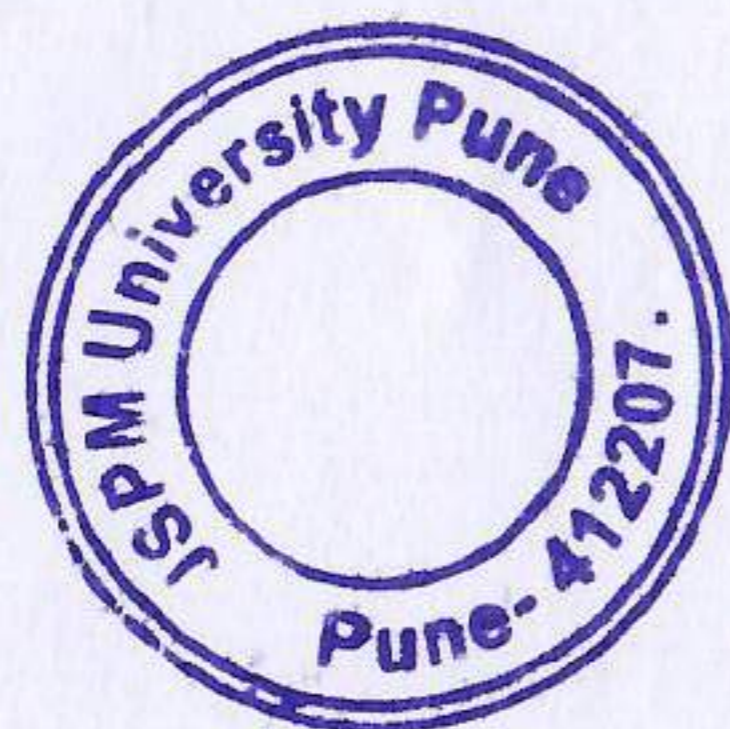

Dr. Anuradha S. Deshpande
Associate Dean (Academics)


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

		JSPM University Pune FACULTY OF SCIENCE & TECHNOLOGY SCHOOL OF BASIC AND APPLIED SCIENCES		COURSE STRUCTURE (NEP 2020 Aligned)													
				W. E. F	2025-2026												
THIRD YEAR BACHELOR OF SCIENCE (COMPUTER SCIENCE)				RELEASE DATE	01/07/2025												
				REVISION NO.	0.0 (NEP)												
SEMESTER VI (LEVEL 5.5) SCHEME A												T O T A L	C R E D I T S				
COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS										
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)			CONTINUOUS INSEMESTER EVALUATION (50marks)	END SEMESTER EXAMINATION (50 marks)	CONTINUOUS INSEMESTER EVALUATION (50marks)	END SEMESTER EXAMINATION (50 marks)				
						T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)	END SEMESTER EXAMINATION (100 / 50 marks)								
PCC	230GSCB19_06	Theory of Computation	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5	
PCC	230GSCB20_06	Full Stack Web Development	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5	
PEC	---	Program Elective Course II	3	-	-	-	30	30	40	100	-	-	-	-	100	3	
MDM	---	Multi-Disciplinary Minor	3	-	-	4	30	30	40	100	-	-	-	-	100	4	
LC	230GSCB21_06	Full Stack Web Development Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
	230GSCB22_06	Web Design Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
PROJ	230GSCB23_06	Project	-	-	4	8	-	-	-	-	50	50	50	50	100	4	
IITP/FP/CEP	230GSCB24_06	Internship	(4 to 6 Weeks)				-	-	-	-	-	-	-	50	50	50	2
TOTAL			10	-	8	16									650	20	
MLC#	---	Audit Course	-	-	2	-	-	-	-	-	50	-	-	-	50	1	

Note: Scheme A is intended for students who will undertake the project at the university during the eighth semester.
 Scheme B is intended for students who will undertake the project along with an industry internship during the eighth semester.


Sem.	Professional Elective Course (PEC)				
	Specialization	Cyber Security	Computer Networking	Software Development and Testing	Data Science
V	Course Code	230GSCB71_05	230GSCB75_05	230GSCB79_05	230GSCB83_05
	Course Name	Principles of Cyber Security	Advanced Networking	Software Analysis and Design	Data Visualization
VI	Course Code	230GSCB72_06	230GSCB76_06	230GSCB80_06	230GSCB84_06
	Course Name	Cyber Law	Cryptography and Network Security	Software Testing	Data Analytics
VII	Course Code	230GSCB73_07	230GSCB77_07	230GSCB81_07	230GSCB85_07
	Course Name	Internet and web Application Security	Network Programming	Automated Testing using Selenium	Data Warehousing and Mining
VIII	Course Code	230GSCB74_08	230GSCB78_08	230GSCB82_08	230GSCB86_08
	Course Name	Domain Specific MOOCs Course	Domain Specific MOOCs Course	Domain Specific MOOCs Course	Big Data Analytics

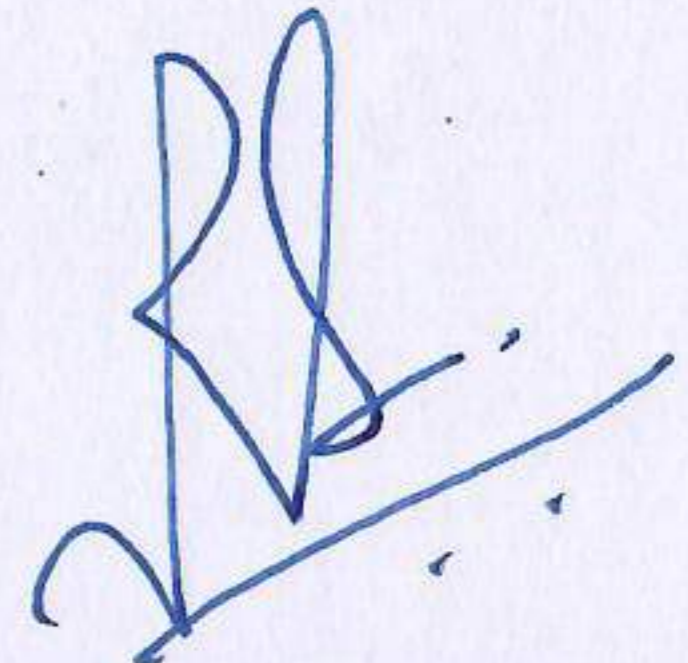


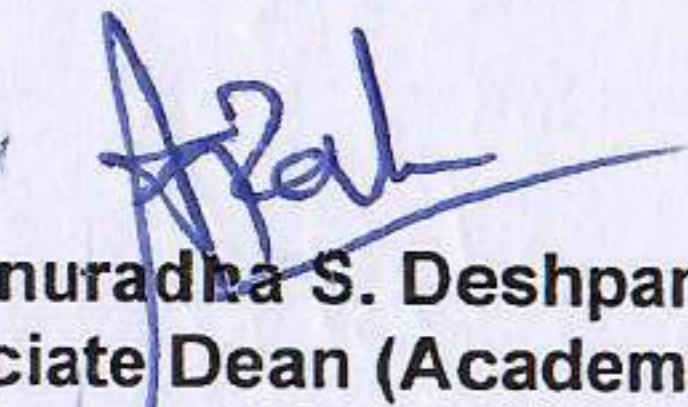
Sem.	Multi-Disciplinary Minor (MDM)	
	Specialization	IoT and Application
II	Course Code	230VBBB42_02
	Course Name	Introduction to Human Recourse Management
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
	Course Code	230GETB59_3
IV	Course Name	Sensors and Interfacing Lab
	Course Code	230GETB60_04
	Course Name	Foundations of IoT
V	Course Code	230GETB61_04
	Course Name	Foundations of IoT Lab
	Course Code	230GETB62_05
VI	Course Name	Wireless Technologies for IoT
	Course Code	230GETB63_05
	Course Name	Wireless Technologies for IoT Lab
VI	Course Code	230GETB64_06
	Course Name	Industrial Internet of Things


Mandatory Learning Course (MLC#) Audit Course	
Course Code	230UPOB02_04
Course Name	Introduction to Indian Constitution
Course Code	240GCAB131_05
Course Name	German Language
Course Code	240GSCB131_06
Course Name	Salesforce Admin 201
Course Code	240GSCB132_07
Course Name	Testing Automation Tools


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COURSE STRUCTURE (NEP 2020 Aligned)

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THIRD YEAR BACHELOR OF SCIENCE (COMPUTER SCIENCE)

SEMESTER VI (LEVEL 5.5) SCHEME B

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 (50marks)	END SEMESTER EXAMINATION (50 marks)	CONTINUOUS INSEMESTER EVALUATION (50marks)	END SEMESTER EXAMINATION (50 marks)		
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)							
PCC	230GSCB19_06	Theory of Computation	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5
	230GSCB20_06	Full Stack Web Development	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5
PEC	---	Program Elective Course II	3	-	-	-	30	30	40	100	-	-	-	-	100	3
MDM	---	Multi-Disciplinary Minor	3	-	-	4	30	30	40	100	-	-	-	-	100	4
LC	230GSCB21_06	Full Stack Web Development Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
	230GSCB22_06	Web Design Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
PROJ	230GSCB25_06	Project	-	-	6	12	30	30	40	-	100	100	50	50	150	6
TOTAL			10	-	8	20									650	20
MLC#	---	Mandatory Learning Course	-	-	2	-	-	-	-	-	50	-	-	-	50	1


Sem.	Professional Elective Course (PEC)				
	Specialization	Cyber Security	Computer Networking	Software Development and Testing	Data Science
V	Course Code	230GSCB71_05	230GSCB75_05	230GSCB79_05	230GSCB83_05
	Course Name	Principles of Cyber Security	Advanced Networking	Software Analysis and Design	Data Science
VI	Course Code	230GSCB72_06	230GSCB76_06	230GSCB80_06	230GSCB84_06
	Course Name	Cyber Law	Cryptography and Network Security	Software Testing	Data Analytics using Python
VII	Course Code	230GSCB73_07	230GSCB77_07	230GSCB81_07	230GSCB85_07
	Course Name	Internet and web Application Security	Network Programming	Automated Testing using Selenium	Data Mining
VIII	Course Code	230GSCB74_08	230GSCB78_08	230GSCB82_08	230GSCB86_08
	Course Name	Domain Specific MOOCs Course	Domain Specific MOOCs Course	Domain Specific MOOCs Course	Big Data Analytics

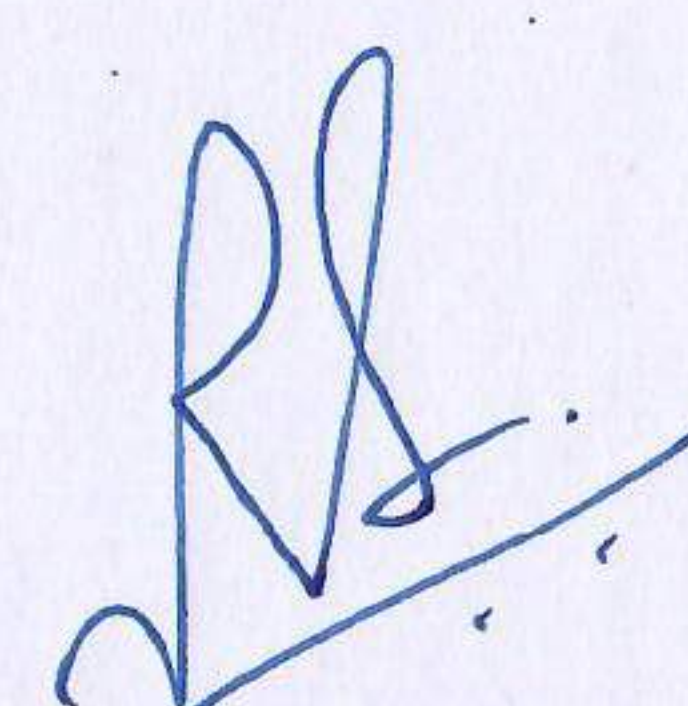


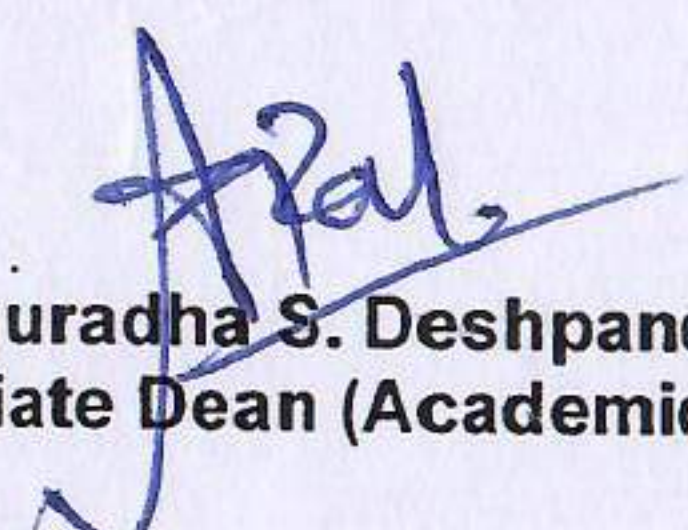
Sem.	Multi-Disciplinary Minor (MDM)	
	Specialization	IoT and Application
II	Course Code	230VBBB42_02
	Course Name	Introduction to Human Resource Management
III	Course Code	230GETB58_03
	Course Name	Sensors and Interfacing
	Course Code	230GETB59_3
IV	Course Name	Sensors and Interfacing Lab
	Course Code	230GETB60_04
	Course Name	Foundations of IoT
V	Course Code	230GETB61_04
	Course Name	Foundations of IoT Lab
	Course Code	230GETB62_05
VI	Course Name	Wireless Technologies for IoT
	Course Code	230GETB63_05
	Course Name	Wireless Technologies for IoT Lab
VI	Course Code	230GETB64_06
	Course Name	Industrial Internet of Things

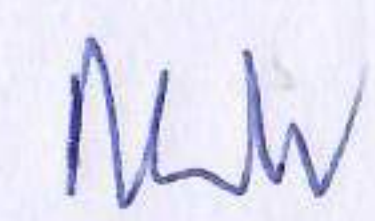
Mandatory Learning Course (MLC#) Audit Course	
Course Code	230UPOB02_04
Course Name	Introduction to Indian Constitution
Course Code	240GCAB131_05
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Course Code	240GSCB132_07
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