



**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**

**Master of Computer Application**

**(Effective from AY: 2025-26)**



# JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF COMPUTATIONAL SCIENCES

FIRST YEAR MASTER OF COMPUTER APPLICATION  
(MCA)

COURSE STRUCTURE  
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

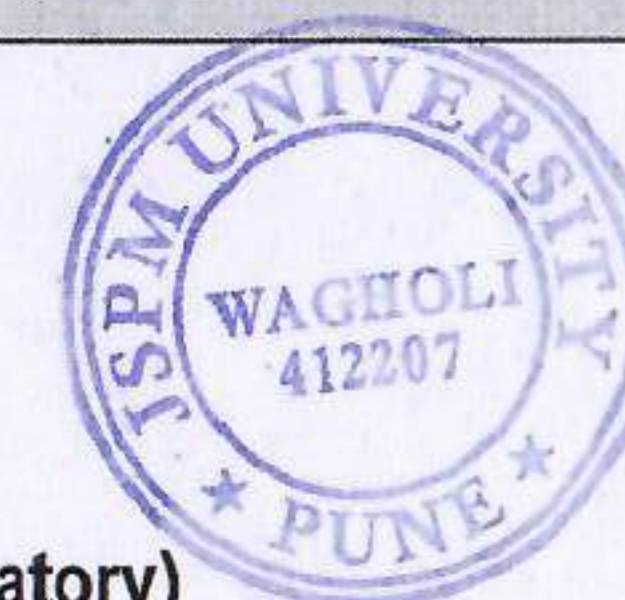
01/07/2025

REVISION NO.

1.0 (NEP)

## SEMESTER I (LEVEL - 6.5)

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	230GMAM04_01	Mathematical Foundations of Computer Science	2	1	-	-	30	30	40	100	-	-	-	-	100	3
PCC	231GCAM01_01	Data Structure and Algorithm	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5
PCC	240GCAM31_01	Introduction to Artificial Intelligence and Machine Learning	2	-	-	-	30	30	40	50	-	-	-	-	50	2
PCC	232GCAM03_01	Data Communication and Computer Networking	2	-	-	-	30	30	40	50	-	-	-	-	50	2
SEC	250GCAM48_01	Full-Stack Development with Java	2	-	2	-	-	-	-	-	50	50	50	50	100	3
MMC	---	Multidisciplinary Minor Course	1	-	2	-	-	-	-	-	50	50	50	50	100	2
VSC	230IDCB01_01	Design Thinking and Creativity	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5
AEC	231UENM01_01	Communicative English for Professionals	1	-	2	-	-	-	-	-	50	50	-	-	50	2
RMC	230IRMM01_01	Research Methodology	2	-	-	-	30	30	40	50	-	-	-	-	50	2
LC	231GCAM17_01	Data Structure and Algorithm Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
LC	240GCAM41_01	Introduction to Artificial Intelligence and Machine Learning Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
<b>TOTAL</b>			<b>15</b>	<b>1</b>	<b>10</b>	<b>4</b>									<b>750</b>	<b>22</b>



Multidisciplinary Minor Course (MMC)					
I	MMC-I	Course Code	230GMTB01	230GETB31	230GRAB51
		Course Name	Sensors and Actuators	Data Communication	Robot Modeling
II	MMC-II	Course Code	230GMTB51	230GETB34	230GRAB52
		Course Name	Sensors and Automation	Internet of Things and Applications	Autonomous Mobile Robot



Dr. Arshiya Anjum F. A.  
Programme Coordinator, MCA

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

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

Vice Chancellor  
JSPM University  
Pune



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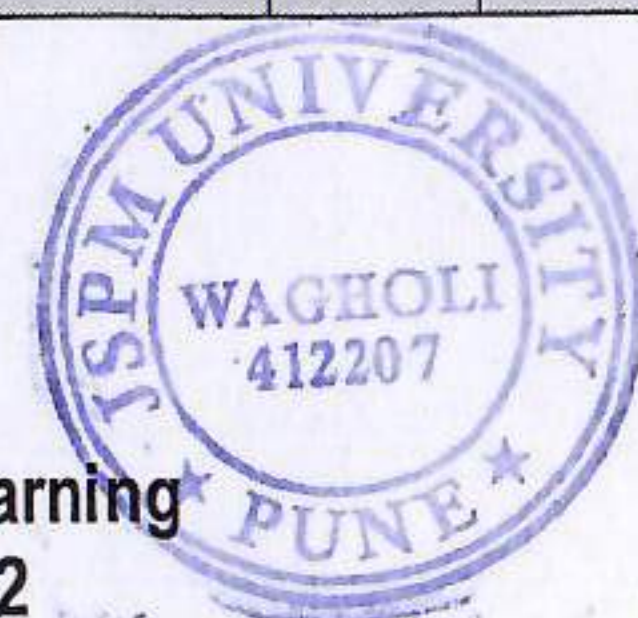
## SEMESTER II (LEVEL – 6.5)

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	240GMAB33_02	Foundation of Data Analysis and Statistical Measures	2	1	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	231GCAM04_02	Advanced Database Management Systems	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5	
PCC	240GDIM15_02	Python Programming for Data Science	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
PCC	240GCAM43_02	Principles of Software Engineering	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
MMC	---	<b>Multidisciplinary Minor Course</b>	1	-	2	-	-	-	-	-	50	50	50	50	100	2	
VSC	230IINB02_02	Innovation	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
AEC	231UENM02_02	Business Communication	1	-	2	-	-	-	-	-	50	50	-	-	50	2	
RMC	230IRMM03_02	Research Data Analysis	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
LC	230GCAM19_02	Advanced Database Management System Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	240GDIM25_02	Python Programming for Data Science Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	240GCAM42_02	Foundations of Mobile Application Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
IITP/FP/CEP	230GCAM21_02	Internship/Field Project/Community Engagement Program	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
<b>TOTAL</b>			<b>13</b>	<b>1</b>	<b>10</b>	<b>4</b>									<b>750</b>	<b>22</b>	

**Note:** A Post Graduate Diploma 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)



L-Lecture

Format No.: JSPMUni/ACAD/001

T-Tutorial

Rev. No.:1.0

P-Practical Session (Laboratory)

Rev. Date:01/07/2025

EL-Experiential Learning

Page 1 of 2

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

Multidisciplinary Minor Course (MMC)					
I	MMC-I	Course Code	230GMTB01	230GETB31	230GRAB51
		Course Name	Sensors and Actuators	Data Communication	Robot Modeling
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To,  
The Honorable Vice Chancellor,  
JSPM university Pune.

Date: 14/07/2025

Subject: Details of NPETL courses offered in odd semester of AY 2025-26.

Respected sir,

In alignment with the National Education Policy 2020 and to enhance flexible learning, we propose to replace the following course(s) in the current curriculum structure with equivalent MOOC / NPTEL online certification course(s) for the academic year 2025-26.

Name of Programme: **SY Master of Computer Application**

Semester: **Third (III)**

Sr. No.	Existing Course in the Curriculum structure			Suggested equivalent MOOC Course			
	Course Code	Course Name	Credits	Course Code	Course Name	Credits	MOOC duration in weeks
1.	240GCAM36_03	Cloud Computing Fundamentals	3	250GCAM65_03	Cloud Computing	3	12



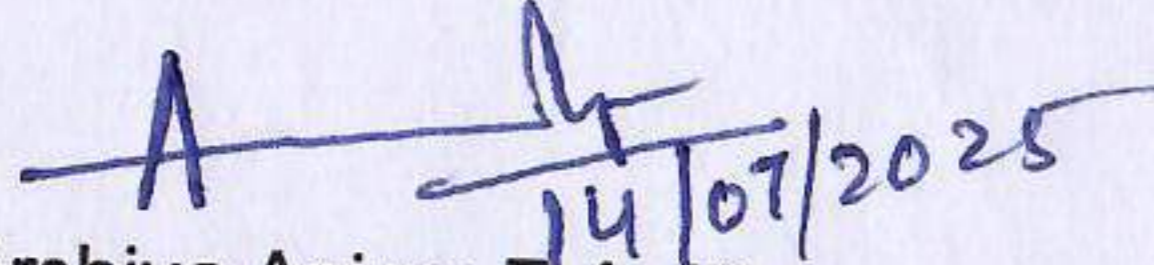
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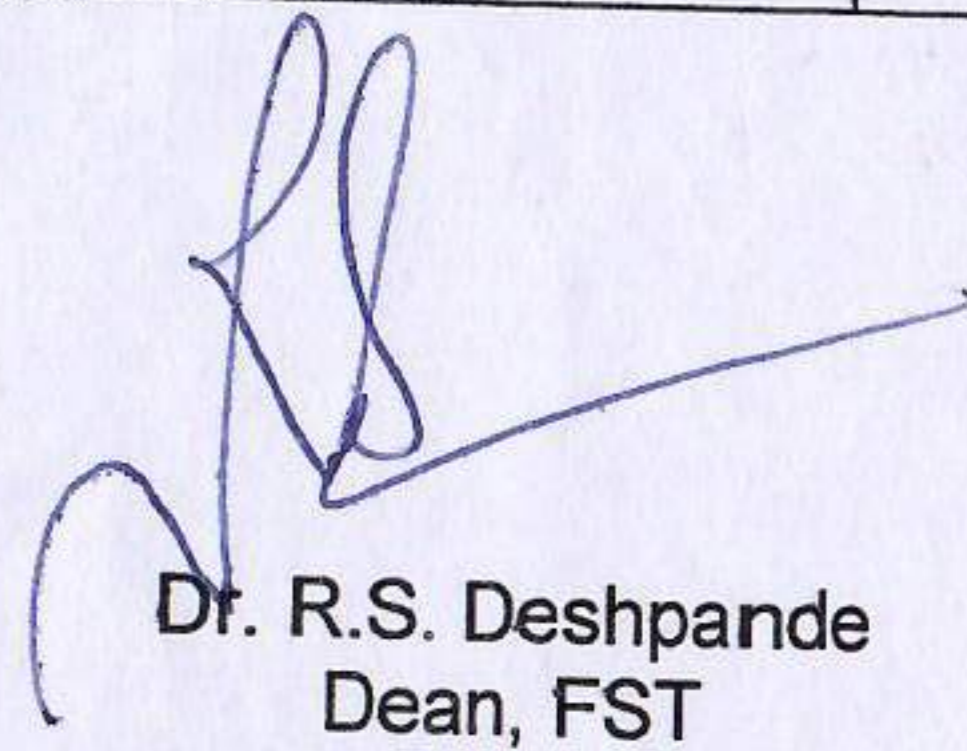
The teaching and evaluation scheme for the suggested MOOC course is follows:

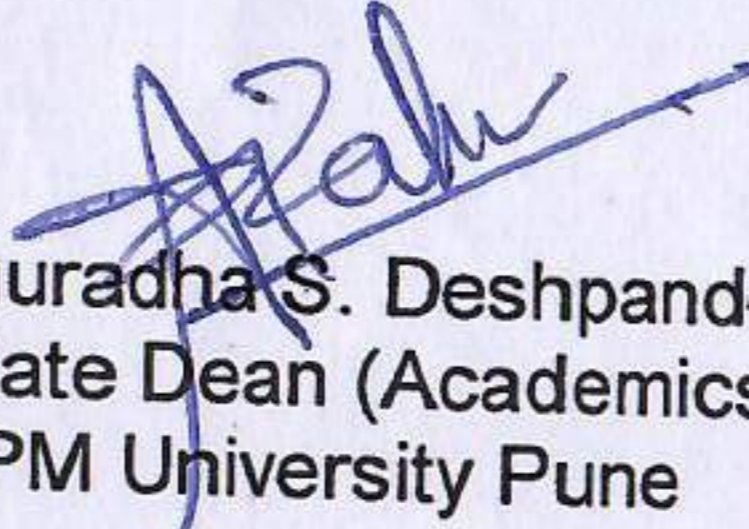
COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS								TOTAL	CREDITS
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)			PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)				
			L	T	P	EL	CONTINUOUS INSEMESTER EVALUATION (100/ 25 Marks)			END SEMESTER EXAMINATION (100 / 50/ 75 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)							
Course to be replaced form the curriculum structure																
PEC-I	240GCAM36_03	Cloud Computing Fundamentals	3	-	-	-	30	30	40	100	-	-	-	-	100	3
Equivalent MOOC/NPTEL course																
PEC-I	250GCAM65_03	Cloud Computing	3	-	-	-	25			75	-	-	-	-	100	3

We kindly request your approval for the proposed replacement.

  
 14/07/2025  
 Dr. Arshiya Anjum F.A. Khan  
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 JSPM University Pune

  
 Dr. G.A. Patil  
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