



KBN PG COLLEGE (AUTONOMOUS): VIJAYAWADA
PROPOSED COURSE STRUCTURE FOR MASTER OF COMPUTER APPLICATIONS
UNDER CHOICE BASED CREDIT SYSTEM (CBCS)
W.E.F 2025-26 (R25 Regulations)

I SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / IDC/DSE/ SEC/OEC/ MOOCS	Internal Marks	External Marks	No. of Credits
		Lecture	Practical	Tutorial				
R25MCA101	Programming and Problem-Solving using Python	4	0	0	Core	30	70	4
R25MCA102	Data Structures	4	0	0	Core	30	70	4
R25MCA103	Mathematical and Statistical Foundations	4	0	0	Core	30	70	4
R25MCA104	Operating Systems	4	0	0	Core	30	70	4
R25MCA105 COMPULSORY	Personality Development through Life Enlightenment Skills	3	1	0	Core	30	70	3
R25MCA106	Survey of Quantum Technologies and Applications	3	0	0	Core	30	70	3
R25MCA107	Data Structures Lab	0	6	0	Core	30	70	3
R25MCA108	Programming and Problem-Solving using Python Lab	0	6	0	Core	30	70	3
TOTAL FOR FIRST SEMESTER						240	560	28

II SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / IDC/DSE/ SEC/OEC/ MOOCS	Internal Marks	External Marks	No. of Credits
		Lecture	Practical	Tutorial				
R25MCA201	Software Engineering and Design Patterns	4	0	0	Core	30	70	4
R25MCA202	Database Management Systems	4	0	0	Core	30	70	4
R25MCA203	Artificial Intelligence	4	0	0	Core	30	70	4
R25MCA204 COMPULSORY	Research Methodology & IPR	3	1	0	SEC	30	70	3
DOMAIN SPECIFIC ELECTIVE COURSES (CHOOSE ANY TWO)								
R25MCA205E1	Design and Analysis of Algorithms	4	0	0	DSE	30	70	4
R25MCA205E2	Data warehousing and Data Mining	4	0	0	DSE	30	70	4
R25MCA205E3	Computer Networks	4	0	0	DSE	30	70	4

R25MCA205E4	Foundations of Quantum Technologies	4	0	0	DSE	30	70	4
LAB PRACTICALS								
R25MCA206	Data Mining Lab	0	6	0	Core	30	70	3
R25MCA207	Database Management Systems Lab	0	6	0	Core	30	70	3
TOTAL FOR SECOND SEMESTER						210	490	29
At the end of 2 nd semester, every student must undergo summer Internship/ Apprenticeship/Project work/Industrial training/Research based Project work for Six weeks and must prepare a report concerned as per approved project guidelines, and submit the same to the University 14 days before the commencement of third semester end examinations.								

III SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / IDC/DSE/ SEC/OE C/MOOC S	Internal Marks	External Marks	No. of Credits
		Lecture	Practical	Tutorial				
R25MCA301	Data Science	4	0	0	Core	30	70	4
DOMAIN SPECIFIC ELECTIVE COURSES (CHOOSE ANY FOUR)								
R25MCA302E1	Principles of Programming Languages	4	0	0	DSE	30	70	4
R25MCA302E2	Machine Learning	4	0	0	DSE	30	70	4
R25MCA302E3	Block Chain Technologies	4	0	0	DSE	30	70	4
R25MCA302E4	Information Security	4	0	0	DSE	30	70	4
R25MCA302E5	Big Data Analytics	4	0	0	DSE	30	70	4
R25MCA302E6	Web Technologies	4	0	0	DSE	30	70	4
R25MCA302E7	Cloud Computing	4	0	0	DSE	30	70	4
LAB PRACTICALS								
R25MCA303	Data Science lab	0	6	0	Core	30	70	3
R25MCA304	Web Technologies Lab	0	6	0	Core	30	70	3
OPEN ELECTIVE (INTERDISCIPLINARY/MULTIDISCIPLINARY) COURSES (CHOOSE ANY ONE)								
R25MCAOE1	R Programming	3	0	0	OEC	30	70	3
R25MCAOE2	Mobile Networks	3	0	0	OEC	30	70	3
R25MCAOE3	Unix Programming	3	0	0	OEC	30	70	3
R25MCAOE4	Introduction to Quantum Computation	3	0	0	OEC	30	70	3
R25MCAOE5	Python Programming	3	0	0	OEC	30	70	3
TOTAL FOR III SEMESTER						240	560	29

IV SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / IDC/DSE/ SEC/OEC/ MOOCS	Internal Marks	External Marks	No. of Credits
		Lecture	Practical	Tutorial				
* CHOOSE MOOCS FROM SWAYAM/NPTEL SOURCES								
R25MCA401	MOOCS						100	4
R25MCA402	PROJECT WORK EVALUATION AND VIVA-VOCE						200	12
TOTAL FOR IV SEMESTER								16

Note: Students may be allowed to register and appear for MOOCS from the third semester itself. However, students are to complete the MOOCS successfully and submit pass certificate of the same to the University through the Principal of the College concerned for approval and endorsement of the same on grade cards

and PCs and ODs as per the regulations of the University.

➤ **Total number of credits at the end of course:**

S.No	Semester	Credits
1	I Semester	28
2	II Semester	29
3	III Semester	29
4	IV Semester	16
TOTAL		102

➤ **Procedure to evaluate midterm examinations:**

Two mid examinations will be conducted in every semester. Final mid semester marks shall be arrived at by considering the average marks of the two mid examinations.

Note:

For Example:

Marks obtained in first mid: 30

Marks obtained in second mid: 30

Final mid semester Marks: $(30+30) = 60/2 = 30$

- **Practical:**

*Continuous assessment/ Day to day work	Semester End Exam	Total
30 marks	70 marks	100M

*Continuous assessment sheet given below.

Note: For practical courses, there shall be a continuous evaluation during the semester for 30 sessional marks and end examination shall be for 70 marks. Day-to-day work in the laboratory shall be evaluated for 30 marks by the concerned laboratory teacher based on the regularity/record/viva. The end examination shall be conducted by the concerned laboratory teacher and external examiner in the subject from other university.

- Internal marks will be awarded by internal examiner only.

Procedure for Project Evaluation and Viva-Voce:

The Project Evaluation and Viva-Voce for 200 marks shall be conducted by a committee consisting of HOD, Project Supervisor and an External Examiner nominated by the University. The Internal Evaluation shall be made by the departmental committee on the basis of review presentation given by each student on the topic of his/her project.