



**MATS**  
**UNIVERSITY**



MATS SCHOOL OF INFORMATION TECHNOLOGY

# **Teaching Learning Scheme**

For

Three Year Full - Time Degree Course

## **Bachelor of Computer Applications**

### **(BCA)**

### **2025-28**

**(Semester Based Course)**

# TEACHING LEARNING SCHEME

**Programme: Bachelor of Computer Applications Sem: I**

NHEQF Level: 4.5   Courses					Evaluation Scheme			Total Marks
Course Category	Discipline	Course Category Code	Course Name	Course Code	Credits	CIA	ESE	
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 01	Computer System Architecture and Digital Electronics	BCA DSC 01	3	30	70	100
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 02	Fundamentals of Programming	BCA DSC 02 T	3	30	70	100
Discipline Specific Core Courses (DSCC)			Fundamentals of Programming Lab	BCA DSC 02 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 03	Database Management System	BCA DSC 03 T	2	15	35	50
Discipline Specific Core Courses (DSCC)			Database Management System Lab	BCA DSC 03 P	2	15	35	50
Generic Elective (GE)	Computer Application	GE 01	Generic Elective - I		4	30	70	100
Skill Enhancement Course (SEC)/Internship	Computer Application	SEC 01	IT Skills	SEC-001	2	15	35	50
Ability Enhancement Course (AEC)	Computer Application	AEC 01	Communication Skill	AEC-001	2	15	35	50
VAC/IKS (Foundation)/IKS(Core)	Computer Application	VAC 01	Yoga and Human Conciseness	VAC-001	2	15	35	50
					<b>22</b>	<b>180</b>	<b>420</b>	<b>600</b>

### Generic Elective Courses

Category	Name	Code
Generic Elective - I	Fundamentals of Entrepreneurship	GE004
	Business Organization	GE007

### Programme: Bachelor of Computer Applications Sem: II

NHEQF Level: 4.5   Courses					Evaluation Scheme			Total Marks
Course Category	Discipline	Course Category Code	Course Name	Course Code				
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 04	Object Oriented Programing Concepts	BCA DSC 04 T	3	30	70	100
Discipline Specific Core Courses (DSCC)			Object Oriented Programing Concepts Lab	BCA DSC 04 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 05	Relational Database Management System	BCA DSC 05 T	3	30	70	100
Discipline Specific Core Courses (DSCC)			Relational Database Management System Lab	BCA DSC 05 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 06	Operating System Concepts	BCA DSC 06	2	15	35	50
Generic Elective (GE)	Computer Application	GE 02	Generic Elective - II		4	30	70	100
Skill Enhancement Course (SEC)/Internship	Computer Application	SEC 02	Web Designing	SEC- 002	2	15	35	50
Ability Enhancement Course (AEC)	Computer Application	AEC 02	Professional Communication Skill	AEC- 002	2	15	35	50
VAC/IKS (Foundation)/IKS (Core)	Computer Application	VAC 02	Environmental Studies and Disaster management	VAC- 002	2	15	35	50
					<b>22</b>	<b>180</b>	<b>420</b>	<b>600</b>

### Generic Elective Courses

Category	Name	Code
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Generic Elective - II	Chhattisgarh ki Jan Jatiya Sanskriti	GE017
	Intellectual Property Rights	GE014

Programme: Bachelor of Computer Applications Sem: III

NHEQF Level: 5   Courses					Evaluation Scheme			Total Marks
Course Category	Discipline	Course Category Code	Course Name	Course Code				
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 07	Data Structure	BCA DSC 07 T	3	30	70	100
Discipline Specific Core Courses (DSCC)			Data Structure Lab	BCA DSC 07 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 08	Java Programing	BCA DSC 08 T	3	30	70	100
Discipline Specific Core Courses (DSCC)			Java Programing Lab	BCA DSC 08 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 09	Software Engineering	BCA DSC 09	2	30	70	100
Generic Elective (GE)	Computer Application	GE 03	Generic Elective III		4	30	70	100
Skill Enhancement Course (SEC)/Internship	Computer Application	SEC 03	Python Programing	SEC 003	2	15	35	50
Ability Enhancement Course (AEC)	Computer Application	AEC 03	Presentation Skill	AEC 003	2	15	35	50
VAC/IKS (Foundation)/IKS (Core)	Computer Application	VAC 03	Vedic Mathematics	VAC 003	2	15	35	50
					<b>22</b>	<b>180</b>	<b>420</b>	<b>600</b>

Generic Elective Courses

Category	Name	Code
Generic Elective - III	Organizational Behavior	GE021
	Managerial Economics	GE016

**Programme: Bachelor of Computer Applications Sem: IV**

NHEQF Level: 5   Courses					Evaluation Scheme			Total Marks
Course Category	Discipline	Course Category Code	Course Name	Course Code	Credit	CIA	ESE	
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 10	Web Technology	BCA DSC 10 T	3	30	70	100
Discipline Specific Core Courses (DSCC)			Web Technology Lab	BCA DSC 10 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 11	Data Warehousing and Data Mining	BCA DSC 11 T	3	30	70	100
Discipline Specific Core Courses (DSCC)			Data Warehousing and Data Mining Lab	BCA DSC 11 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 12	Data Communication and Computer Network	BCA DSC 12	2	15	35	50
Discipline Specific Elective Courses (DSEC)	Computer Application	DSE 01	Elective IV		4	30	70	100
Skill Enhancement Course (SEC)/Internship	Computer Application	SEC 04	Prompt Engineering	SEC 004	2	15	35	50
Ability Enhancement Course (AEC)	Computer Application	AEC 04	Business Communication Skill	AEC 004	2	15	35	50
VAC/IKS (Core)/IKS (Foundation)	Computer Application	VAC 04	Society, Culture and Human Behavior	VAC 04	2	15	35	50
					<b>22</b>	<b>120</b>	<b>420</b>	<b>600</b>

Discipline Specific Elective Courses (DSEC)	Minor <b>Elective IV</b>	Blockchain Technology	BCA DSE 01
	Minor <b>Elective IV</b>	Software Testing Techniques	BCA DSE 02

### Programme: Bachelor of Computer Applications Sem: V

NHEQF Level: 5.5   Courses					Evaluation Scheme			Total Marks
Course Category	Discipline	Course Category Code	Course Name	Course Code	Credits	CIA	ESE	
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 13	Advanced Java Programming	BCA DSC 13 T	3	30	70	100
			Advanced Java Programming Lab	BCA DSC 13 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 14	Compiler Designing	BCA DSC 14	4	30	70	100
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 15	Cloud Computing Foundations	BCA DSC 15	3	30	70	100
Discipline Specific Elective Courses (DSEC)	Computer Application	DSE 02	Elective V		3	30	70	100
			Elective V Lab		2	15	35	50
Discipline Specific Elective Courses (DSEC)	Computer Application	DSE03	Elective VI		3	30	70	100
Skill Enhancement Course (SEC)/Internship	Computer Application	SEC 05	Internet of Things	BCA SEC 005	2	15	35	50
					22	195	455	650

Discipline Specific Elective Courses (DSEC)	Minor Elective V  (ML & AI Specialization)	Introduction to Artificial Intelligence	BCA DSE 03 T
		Introduction to Artificial Intelligence Lab	BCA DSE 03 P
	Minor Elective V (Web Technology Specialization)	ASP.Net Programming Concepts	BCA DSE 04 T
		ASP.Net Programming Concepts Lab	BCA DSE 04 P
	Minor Elective VI	Advanced Operating System	BCA DSE 05
		Advanced Networking	BCA DSE 06

### Programme: Bachelor of Computer Applications Sem: VI

NHEQF Level: 5.5   Courses					Evaluation scheme			Total Marks
Course Category	Discipline	Course Category Code	Course Name	Course Code	Credits	CIA	ESE	
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 16	Advanced Machine Learning	BCA DSC 16 T	3	30	70	100
			Advanced Machine Learning Lab	BCA DSC 16 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 17	User Interface and User Experience Design	BCA DSC 17 T	3	30	70	100
			User Interface and User Experience Design Lab	BCA DSC 17 P	2	15	35	50
Discipline Specific Core Courses (DSCC)	Computer Application	DSC 18	Green Computing	BCA DSC 18	2	15	35	50
Discipline Specific Elective Courses (DSEC)	Computer Application	DSE 06	Elective VII		2	15	35	50
			Elective VII Lab		2	15	35	50
Ability Enhancement course (AEC)	Computer Application	AEC 05	Corporate Communication Skills	AEC 005	2	15	35	50
Skill Enhancement Course (SEC)/Internship	Computer Application	INT 01	Internship/Project	INT 01	4	50	100	150
					<b>22</b>	<b>200</b>	<b>450</b>	<b>650</b>

Discipline Specific Core Courses (DSCC) Major Elective VI	Major (ML & AI) Elective VII	Data Analytics and Visualization	BCA DSE 07 T
		Data Analytics and Visualization Lab	BCA DSE 07 P

Discipline Specific Core Courses (DSCC) Major  Elective VI	Major (ML & AI)  <b>Elective VII</b>	Advanced Web Technology	BCA DSE 08 T
		Advanced Web Technology Lab	BCA DSE 08 P