



Course Name: Bachelor of Computer Application (BCA) with Specialization in Gaming and Animation

## School of Engineering & Technology

### Course Structure

#### First Year Semester – I

Sl. No	Course Title	L	T	P	Contact Hrs./Wk.	Credits
1	Mathematics-I	3	1	0	4	4
2	Introduction to Programming	3	0	0	3	3
3	English Communication	3	0	0	3	3
4	Computer Fundamentals	3	0	0	3	3
5	Environmental Science	3	0	0	3	3
6	Programming Lab.	0	0	3	3	2

#### Semester – II

Sl. No	Course Title	L	T	P	Contact Hrs./Wk.	Credits
1	Mathematics-II	3	1	0	4	4
2	Programming & Data Structures	3	0	0	3	3
3	Digital Electronics	3	0	0	3	3
4	Design of Logic Circuits	3	0	0	3	3
5	Web Designing	3	0	0	3	3
6	Data Structures Lab.	0	0	3	3	2
7	Digital Electronics Lab.	0	0	3	3	2
8	Web Designing Lab.	0	0	3	3	2

**Total Credits (First Year): 18 + 22 = 40**

#### Second Year Semester – III

Sl. No	Course Title	L	T	P	Contact Hrs./Wk.	Credits
--------	--------------	---	---	---	------------------	---------

1	Object Oriented Programming with JAVA	3	0	0	3	3
2	Programming in Python	3	0	0	3	3
3	Computer Organization & Architecture	3	0	0	3	3
4	Database Management System	3	0	0	3	3
5	Object Oriented Programming Lab.	0	0	3	3	2
6	Python Programming Lab.	0	0	3	3	2
7	Computer Organization Lab.	0	0	3	3	2
8	Database Management System Lab	0	0	3	3	2

### Semester - IV

Sl. No	Course Title	L	T	P	Contact Hrs./Wk.	Credits
1	<b>Data Communication &amp; Computer Network</b>	3	0	0	3	3
2	Algorithm Design	3	0	0	3	3
3	<b>Operating System</b>	3	0	0	3	3
4	<b>Introduction to Game Design</b>	3	0	0	3	3
5	<b>Game Development – I</b>	3	0	0	3	3
6	<b>Computer Network Lab.</b>	0	0	3	3	2
7	Algorithm Design Lab	0	0	3	3	2
8	<b>Operating System Lab.</b>	0	0	3	3	2
9	<b>Game Design Lab.</b>	0	0	3	3	2
10	<b>Game Development – I Lab</b>	0	0	3	3	2
11	Maya – Modelling, Rigging and Animation Lab	0	0	3	3	2

**Total Credits (Second Year): 20 + 27 = 47**

### Third Year Semester – V

Sl. No	Course Title	L	T	P	Contact Hrs./Wk.	Credits
1	<b>Artificial Intelligence</b>	3	0	0	3	3
2	<b>Software Engineering</b>	3	0	0	3	3
3	<b>Drawing for Animation</b>	3	0	0	3	3
4	Game Development – II	3	0	0	3	3
5	<b>Artificial Intelligence Lab.</b>	0	0	3	3	2
6	<b>Software Engineering Lab.</b>	0	0	3	3	2
7	<b>Game Development – II Lab</b>	0	0	3	3	2
8	<b>3D Character Animation Lab</b>	0	0	3	3	2
9	Sound and Visual Effects Lab	0	0	3	3	2
10	<b>Multiplayer Game Programming Lab</b>	0	0	3	3	2
11	<b>Project-I</b>	0	2	0	2	4

### Semester - VI

Sl. No	Course Title	L	T	P	Contact Hrs./Wk.	Credits
1	Virtual and Augmented Reality	3	0	0	3	3
2	Cyber Security	3	0	0	3	3
	Virtual and Augmented Reality Lab	0	0	3	3	2
3	Viva-voce	0	2	0	2	3
4	Project-II	0	0	9	9	6

**Total Credits (Third Year): 28 + 17 = 45**

**Total Credits (Over Three Years): 120 + 12 = 132**