



**JECRC**<sup>TM</sup>  
**UNIVERSITY**  
BUILD YOUR WORLD

**Choice Based Credit Course Structure and Syllabi**


**B. Sc. (Pass) - Physics**


**Department of Physics**

**Faculty of Sciences**

**Academic Session: 2021-2024**

  
(Prof. Y.K. Vijay)

  
(Dr. Nishant Kumar)

  
(Dr. Abhishek Sharma)  
Chaudan Joshi  
(Dr. Chaudan Joshi)

**DEPARTMENT OF PHYSICS**  
**FACULTY OF SCIENCE**  
**STUDY SCHEME**

Details of Scheme for B Sc. (Passcourse.) with various Courses and their credits with contact hours are given below:

**Semester I**

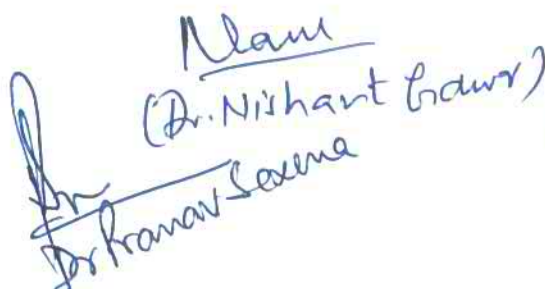
S.No	Subject	Lecture (Hr.)	Tutorials (Hr.)	Practical (Hr.)	Credits			Total Credits	Paper Category
					L	T	P		
1.	<b>Mechanics &amp; Optics</b>	4	-	2	4		1	5	<b>Core</b>
2.	Subject B (Course 1)	4	-	2	4		1	5	<b>Core</b>
3.	Subject C (Course 1)	4	-	2	4		1	5	<b>Core</b>
4.	Fundamental of Computers	2	-		2			2	<b>Fundamental</b>
5.	Fundamental of Computers lab			2			1	1	<b>Fundamental</b>
6.	Environment Studies	3		2*	3		1	4	<b>Fundamental</b>
7.	Communication Skills	2	0	0	2	0	0	2	<b>Foundation</b>
8.	Communication Skills Lab	0	0	2	0	0	1	1	<b>Foundation</b>
9.	Culture Education I	2	-		2			2	<b>Foundation</b>
		<b>21</b>		<b>12</b>	<b>21</b>		<b>6</b>	<b>27</b>	

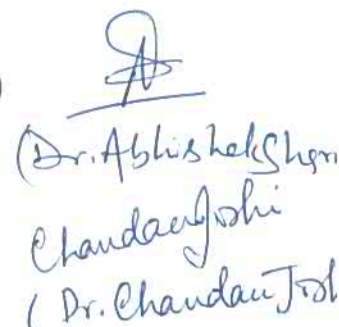
\*Field/ Project Work and Report

**Semester II**

S.No	Subject	Lecture (Hr.)	Tutorial (Hr.)	Practical (Hr.)	Credits			Total Credits	Paper Category
					L	T	P		
1.	<b>Thermodynamics &amp; Waves and Vibrations</b>	4	-	2	4		1	5	<b>Core</b>
2.	Subject B (Course 2)	4	-	2	4		1	5	<b>Core</b>
3.	Subject C (Course 2)	4	-	2	4		1	5	<b>Core</b>
4.	Computer Application-II (Advanced MS-Excel)		-	2			1	1	<b>Fundamental</b>
5.	Professional Skills	2	0	0	2	0	0	2	<b>Foundation</b>
6.	Professional Skills Lab	0	0	2	0	0	1	1	<b>Foundation</b>
7.	Culture Education-2	2	0	0	2	0	0	2	<b>Foundation</b>
		<b>16</b>		<b>10</b>	<b>16</b>		<b>5</b>	<b>21</b>	

  
 (Prof. Y.K. Vijay)

  
 (Dr. Nishant Bawar)  
 Dr. Ronav Saxena

  
 (Dr. Abhishek Shrivastava)  
 Chandan Joshi  
 (Dr. Chandan Joshi)

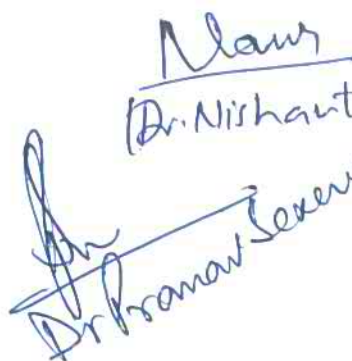
### Semester III

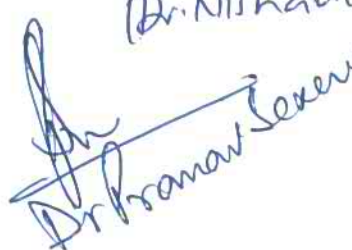
S.No	Subject	Lecture (Hr.)	Tutorial (Hr.)	Practical (Hr.)	Credits			Total Credits	Paper Category
					L	T	P		
1.	<b>Mathematical Physics &amp; Electronics</b>	4	-	2	4		1	5	Core
2.	Chemistry B (Course3)	4	-	2	4		1	5	Core
3.	Mathematics C (Course3)	4	-	2	4		1	5	Core
4.	Computer Application -III ( MS- Projects)		-	2			1	1	Fundamental
5.	Life Skills1(Aptitude)	1	0	2	1	0	1	2	Foundation
6.	Value Education-1	1	0	0	1	0	0	1	Foundation
7.	Open Elective I	3		0	3		0	3	Interdisciplinary
		17		10	17		5	22	


### Semester IV

S.No	Subject	Lecture (Hr.)	Tutorials (Hr.)	Practical (Hr.)	Credits			Total Credits	Paper Category
					L	T	P		
1.	<b>Solid State Physics &amp; Nuclear and Particle Physics</b>	4	-	2	4		1	5	Core
2.	Chemistry (Course4)	4	-	2	4		1	5	Core
3.	Mathematics (Course 4)	4	-	2	4		1	5	Core
4.	Computer Application -IV ( Web Designing )	2	-		2			2	Fundamental
5.	Computer Application -IV ( Web Designing ) Lab			2			1	1	Fundamental
6.	Life Skills-2 (Personality Development)	1	0-	2	1	0	1	2	Foundation
7.	Value Education-2	1	0	0	1	0	0	1	Foundation
		16		10	16		5	21	

  
(Prof. Y. K. Vijay)

  
(Dr. Nishant Ram)

  
Dr. Pranav Senere

  
(Dr. Abhishek Shyam)

Chaudhari  
Dr. Chaudhari

### Semester V

S.No	Subject	Lecture (Hr.)	Tutorials (Hr.)	Practical (Hr.)	Credits			Total Credits	Paper Category
					L	T	P		
1.	Quantum Mechanics & Electromagnetic Theory	4	-	2	4		1	5	Core
2.	Subject B(Course5)	4	-	2	4		1	5	Core
3.	Subject C(Course5)	4	-	2	4		1	5	Core
4.	Project			12			6	6	Discipline Specific
		12		18	12		9	21	


### Semester VI

S.No	Subject	Lecture (Hr.)	Tutorials (Hr.)	Practical (Hr.)	Credits			Total Credits	Paper Category
					L	T	P		
1	Atomic and Molecular Physics & Renewable Energy	4	1	-	4	1	0	5	Core
2	Chemistry (Course 6)	4	-	2	4		1	5	Core
3	Mathematics (Course 6)	4		2	4		1	5	Core
4	Open Elective- II	3			3			3	Interdisciplinary
5	Open Elective –III	3			3			3	Interdisciplinary
		18		6	18		3	21	

### Total Credits

Credits	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem	Total
	27	21	22	21	21	21	133

  
 (Prof. V.K. Vijay)

  
 (Dr. Nishant Gaur)

  
 (Dr. Abhishek Sharma)

  
 (Dr. Anam Seenu)

  
 (Dr. Chandan Joshi)