



## **CURRICULUM**

**For B.Sc. (Hons) Physics**

**School of Basic and Applied Sciences**

**Galgotias University, Uttar Pradesh**

**[Academic Years: 2019-22]**

### **B.SC. (Hons) Physics Course Structure**

<b>S. No.</b>	<b>Category</b>	<b>Credits</b>
	<b>University core</b>	<b>3</b>
<b>1</b>	<b>Program Core</b>	<b>82</b>
<b>2</b>	<b>Discipline Specific Courses (DSC)</b>	<b>12</b>
<b>3</b>	<b>Generic Electives</b>	<b>24</b>
<b>4.</b>	<b>Skill Enhancement Courses</b>	<b>4</b>
<b>5.</b>	<b>Ability Enhancement Courses</b>	<b>2</b>
<b>6.</b>	<b>Project</b>	<b>13</b>
	<b>Total Credits</b>	<b>140</b>



## 1<sup>st</sup> Year

### Semester-I

Common with	Subject Code	Subject	L	T	P	C
	BSCP1001	Wave and Optics	4	-	-	4
	BSCP1002	Wave and Optics Lab	-	-	4	2
BSc (H) Chemistry., Electronics Instrumentation	BMAT1041	Foundation Course in Mathematics	5	1	-	6
BSc (H) Chemistry., Electronics Instrumentation.	BCSE1021	Programming in C and C++	4	-	-	4
BSc (H) Chemistry., Electronics Instrumentation	BCSE1031	Programming in C and C++ Lab	-	-	4	2
BSc (H) Chemistry., Electronics Instrumentation	BSCA1051	Environmental Science	2	-	-	2
BSc (H) Chemistry	BSBA1061	Hands on Workshop on Basic Analytical Techniques and Measurements	-	-	4	2
<b>TOTAL CREDIT</b>						<b>22</b>

### Semester-II

Common with	Subject Code	Subject	L	T	P	C
	BSCP1003	Mathematical Physics I	4	-	-	4
	BSCP1004	Mathematical Physics I Lab	-	-	4	2
BSc (H) Chemistry., Electronics	BSCG1001	Nanoscience and Nanotechnology	4	-	-	4
BSc (H) Chemistry., Electronics	BSCG1051	Nanoscience and Nanotechnology lab	-	-	4	2
BSc (H) Chemistry., Electronics Instrumentation	BSCC1043	General Chemistry	4	-	-	4
BSc (H) Chemistry., Electronics Instrumentation	BSCC1044	General Chemistry Lab	-	-	4	2
BSc (H) Chemistry., Electronics Instrumentation	FENG1003	Functional English II	3	-	-	3
BSc (H) Chemistry	BSCS1062	Analytical Techniques and Instrumentation	-	-	4	2
<b>TOTAL CREDIT</b>						<b>23</b>



## 2<sup>nd</sup> Year

### Semester-III

	<b>Subject Code</b>	<b>Subject</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
	BSCP2001	Mathematical Physics II	4	-	-	4
	BSCP2002	Mathematical Physics II Lab	-	-	4	2
	BSCP2003	Electricity and Magnetism	4	-	-	4
	BSCP2004	Electricity and Magnetism Lab	-	-	4	2
BSc (H) Chemistry., Electronics Instrumentation	BSCP2005	Elements of Modern Physics	4	-	-	4
BSc (H) Chemistry., Electronics Instrumentation	BSCP2006	Elements of Modern Physics Lab	-	-	4	2
	BSCP2007	Classical Mechanics	5	1	-	6
	BSCP2051	Laser Physics	4	-	-	4
<b>TOTAL CREDIT</b>						<b>28</b>

### Semester-IV

<b>Common with</b>	<b>Subject Code</b>	<b>Subject</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
BSc (H) Electronics	BSCP2008	Electromagnetic Theory	5	1	-	6
	BSCP2009	Mathematical Physics III	4	-	-	4
	BSCP2010	Mathematical Physics III Lab	-	-	4	2
	BSCP2011	Solid State Physics	4	-	-	4
	BSCP2012	Solid State Physics Lab	-	-	4	2
	BSCP2013	Analog Systems and Applications	4	-	-	4
	BSCP2014	Analog Systems and Applications Lab	-	-	4	2
	BSCP2052	Classical Dynamics	4	-	-	4
<b>TOTAL CREDIT</b>						<b>28</b>



### 3<sup>rd</sup> Year

#### Semester-V

Subject Code	Subject	L	T	P	C
BSCP3001	Quantum Mechanics & Applications	4	-	-	4
BSCP3008	Thermal Physics lab	-	-	4	2
BSCP3003	Statistical Mechanics	4	-	-	4
BSCP3004	Statistical Mechanics Lab	-	-	4	2
BSCP3005	Digital Systems and Applications	4	-	-	4
BSCP3006	Digital Systems and Applications Lab	-	-	4	2
BSCP3007	Thermal Physics	4		-	4
BSCP3051	Nuclear and Particle Physics	4	-	-	4
BSCP9998	Mini Project***	-	-	2	1
<b>TOTAL CREDIT</b>					<b>27</b>

\*\*\* Students will do mini project after ETE of IV<sup>th</sup> semester. Students may opt topics such as theoretical analysis, simulation and modeling, practical problems and review on recent scientific developments etc.

#### Semester-VI

Subject Code	Subject	L	T	P	C
BSCP9999	Project		-	-	12
<b>TOTAL CREDIT</b>					<b>12</b>

### 4 credits of one Discipline Specific Course –Electives (DSC) and 8 credits of four lab courses (from four DSC) are converted as Project of total 12 credits.