

**SYLLABI AND COURSES OF READING FOR BACHELOR OF SCIENCE IN PHYSICS (HONS) EXAMINATION (2019-2022)**

**SEMESTER: I**

**SCHEME OF TEACHING and EXAMINATION**

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HOURS PER WEEK)			CREDITS	MARKS					
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL		MCQ	PRACTICAL FILE	END SEMESTER EXAMINATION	
							Theory	Practical			Theory	Practical
Core	PHY05C101	Mechanics	4	-	-	4	20	-	20	-	60	-
		Mechanics Lab.	-	-	4	2	-	10	-	10	-	30
Core	PHY05C102	Mathematical Physics-I	5	1	-	6	20	-	20	-	60	-
AECC	AEC05AX02	Environment Studies	3	1	-	4	20	-	20	-	60	-
GE	MTM05GX01	General Mathematics-I	5	1	-	6	20	-	20	-	60	-
GS	CCE05GX02	Governance, Polity and Indian Constitution	5	-	-	NCC	20	-	20	-	60	-
		<b>TOTAL</b>	22	3	4		100	10	10			
				<b>29</b>			<b>22</b>	<b>550</b>				

**List of Ability Enhancement Compulsory Courses offered by University and students can anyone courses:**

- AEC05AX01: General English & Communications
- AEC05AX03: Communication Skills Enhancement Course
- AEC05AX02: Environment Studies

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**SEMESTER: II**

**SCHEME OF TEACHING and EXAMINATION**

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HOURS PER WEEK)			CREDITS	MARKS					
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL		MCQ	PRACTICAL FILE	END SEMESTER EXAMINATION	
							Theory	Practical			Theory	Practical
Core	PHY05C201	Electricity and Magnetism	4	-	-	4	20	-	20	-	60	-
		Electricity and Magnetism Lab.	-	-	4	2	-	10	-	10	-	30
Core	PHY05C202	Waves and Optics	4	-	-	4	20	-	20	-	60	-
		Waves and Optics Lab.	-	-	4	2	-	10	-	10	-	30
AECC	AEC05AX01	General English Communication	3	1	-	4	20	-	20	-	60	-
GE	MTM05GX02	General Mathematics-II	5	1	-	6	20	-	20	-	60	-
GS	CCE05GX01	Ethics, Integrity and Aptitude	5	-	-	NCC	20	-	20	-	60	-
<b>TOTAL</b>			21	2	8	22	100	20	100	20	300	60
			31				600					

**List of Ability Enhancement Compulsory Courses offered by University and students can anyone courses:**

- AEC05AX01: General English & Communications
- AEC05AX03: Communication Skills Enhancement Course
- AEC05AX02: Environment Studies

**SYLLABI AND COURSES OF READING FOR BACHELOR OF SCIENCE IN PHYSICS (HONS) EXAMINATION (2019-2022)**

**SEMESTER: III  
SCHEME OF TEACHING and EXAMINATION**

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HOURS PER WEEK)			CREDITS	MARKS					
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL		MCQ	PRACTICAL FILE	END SEMESTER EXAMINATION	
							Theor y	Practical			Theory	Practical
Core	PHY05C301	Mathematical Physics-II	5	1	-	6	20	-	20	-	60	-
Core	PHY05C302	Thermal Physics	5	1	-	6	20	-	20	-	60	-
Core	PHY05C303	Analog Systems and Applications	4	-	-	4	20	-	20	-	60	-
		Analog Systems and Applications Lab	-	-	4	2	-	10	-	10	-	30
SEC	PHY05KX01	Basic Instrumentation Skills	3	-	-	3	20	-	20	-	60	-
		Basic Instrumentation Skills Lab.	-	-	2	1	-	10	-	10	-	30
GE	CHM05GX01	General Chemistry-I	4	-	-	4	20	-	20	-	60	-
		General Chemistry-I Lab	-	-	4	2	-	10	-	10	-	30
<b>TOTAL</b>			21	2	10	-	100	30	100	30	300	90
			<b>33</b>			<b>28</b>	<b>650</b>					

**List of Skill Enhancement Courses offered by University and students can anyone courses:**

- PHY05KX01      Basic Instrumentation Skills
- PHY05KX02      Computational Physics Skills
- PHY05KX03      Electric Circuits and Network Skills
- PHY05KX04      Physics Workshop Skills

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**SEMESTER: IV**

**SCHEME OF TEACHING and EXAMINATION**

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING(HOURS PER WEEK)			CREDITS	MARKS					
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL		MC Q	PRACTICAL FILE	END SEMESTER EXAMINATION	
							Theory	Practical			Theory	Practical
Core	PHY05C401	Mathematical Physics-III	5	1	-	6	20	-	20	-	60	-
Core	PHY05C402	Elements of Modern Physics	5	1	-	6	20	20	20	20	60	60
Core	PHY05C403	Digital Systems and Applications	4	-	-	4	20	-	20	-	60	-
		Digital Systems and Applications Lab.	-	-	4	2	-	10	-	10	-	30
SEC	PHY05KX02	Computational Physics	3	-	-	3	20	-	20	-	60	-
		Computational Physics Lab.	-	-	2	1	-	10	-	10	-	30
GE	CHM05GX04	General Chemistry-II	4	-	-	4	20	-	20	-	60	-
		General Chemistry-II Lab	-	-	4	2	-	10	-	10	-	30
			<b>21</b>	<b>2</b>	<b>10</b>		<b>100</b>	<b>50</b>	<b>50</b>			
		<b>TOTAL</b>	<b>33</b>			<b>28</b>	<b>750</b>					

List of Skill Enhancement Courses offered by University and students can anyone courses:

- PHY05KX01 Basic Instrumentation Skills
- PHY05KX02 Computational Physics Skills
- PHY05KX03 Electric Circuits and Network Skills
- PHY05KX04 Physics Workshop Skills

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**SEMESTER: V**

**SCHEME OF TEACHING and EXAMINATION**

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HOURS PER WEEK)			CREDITS	MARKS					
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL		MCQ	PRACTICAL FILE	END SEMESTER EXAMINATION	
							Theory	Practical			Theory	Practical
Core	PHY05C501	Quantum Mechanics and Applications	5	1	-	6	20	-	20	-	60	60
Core	PHY05C502	Solid State Physics	4	-	-	4	20	-	20	-	60	-
		Solid State Physics Lab.	-	-	4	2	-	10	-	10	-	30
DSE	PHY05E503	Astronomy and Astrophysics	5	1	-	6	20	-	20	-	60	-
DSE	PHY05E502	Nuclear Physics	5	1	-	6	20	-	20	-	60	-
GS	CCE05GX03	Development Studies	5	-	-	NCC	20	-	20	-	60	-
<b>TOTAL</b>			24	3	4		100	10	100	10	300	90
			<b>31</b>			<b>24</b>	<b>610</b>					

**List of Discipline Specific Elective Courses offered by University and students can opt any two courses:**

- PHY05E501      Experimental Techniques
- PHY05E502      Nuclear Physics
- PHY05E503      Astronomy and Astrophysics
- PHY05E504      Medical Physics

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**SEMESTER: VI**

**SCHEME OF TEACHING and EXAMINATION**

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HOURS PER WEEK)			CREDITS	MARKS					
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL		MCQ	PRACTICAL FILE	END SEMESTER EXAMINATION	
							Theory	Practical			Theory	Practical
Core	PHY05C601	Electromagnetic Theory	4	-	-	4	20	-	20	-	60	-
		Electromagnetic Theory	-	-	4	2	-	10	-	10	-	30
Core	PHY05C602	Statistical Mechanics	5	1	-	6	20	-	20	-	60	-
DSE	PHY05E601	Particle Physics	5	1	-	6	20	-	20	-	60	-
DSE	PHY05E602	Nanomaterials and Applications	5	1	-	6	20	-	20	-	60	-
GS	CCE05GX04	History and Culture of India and World	5	-	-	NCC	20	-	20	-	60	-
<b>TOTAL</b>			<b>24</b>	<b>3</b>	<b>4</b>	<b>24</b>	<b>100</b>	<b>10</b>	<b>100</b>	<b>10</b>	<b>300</b>	<b>30</b>
			<b>31</b>			<b>24</b>	<b>550</b>					

**List of Discipline Specific Elective Courses offered by University and students can opt any two courses:**

- PHY05E601 Particle Physics
- PHY05E602 Nanomaterials and Applications
- PHY05E603 Classical Dynamics
- PHY05P601 Project