



**SCHOOL OF ENGINEERING AND SCIENCES**

**M.Sc. in Physics**

**2023-25 Batch**

## MSc in Physics

Semester-1							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
AEC1	University AEC	Community Engagement and Social Responsibility	0	0	0	1*	0
VAC1	University VAC	Effective Communication for Impactful Interviews	2	0	0	2	60
SEC1	School SEC	Introduction to R and Python	1	1	1	3	90
CORE	Department	Mathematical Methods	2	2	0	4	120
CORE	Department	Classical Mechanics	2	2	0	4	120
CORE	Department	Quantum Mechanics	2	1	1	4	120
CORE	Department	Electromagnetic Theory	2	1	1	4	120
FIC	School	Data Science for Beginners	3	0	0	3	90
<b>Semester Total</b>						<b>24</b>	<b>720</b>
Semester-2							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
AEC2	University AEC	Community Engagement and Social Responsibility	0	0	0	1*	0
VAC2	University VAC	Entrepreneurial Mindset	2	0	0	2	60
SEC2	School SEC	Research Design and Methods	2	1	0	3	90
Core Elective	Department	Numerical Methods in Physics/ Atomic & Molecular Physics/ Nuclear & Particle Physics	2	1	0	3	90
Core Elective	Department	Numerical Methods in Physics/ Atomic & Molecular Physics/ Nuclear & Particle Physics	2	1	0	3	90
Core	Department	Statistical Mechanics	2	2	0	4	120
Core	Department	Condensed Matter Physics	2	0	2	4	120
FIC	University	Design Thinking	3	0	0	3	90
<b>Semester Total</b>						<b>22</b>	<b>660</b>
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
RDIP	Department		0	0	2	2	60

Semester-3							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
AEC3	School AEC	Research Seminar	0	0	0	1*	
Core	Department	Electronics	2	0	2	4	120
Core Elective	Department	Quantum Information and Computation/ Density Functional Theory/ Quantum Electrodynamics/ Quantum Optics.	2	1	0	3	90
Core Elective	Department	Condensed Matter Physics - II/ Spintronics & Nano-magnetism - MEMS+NEMS/ Instrumentation & Experimental Physics/ Soft Matter & Biophysics.	2	1	0	3	90
Core Elective	Department	Solid State Battery Technologies. / Semiconductor Device Technologies/ Renewable Energy: Fundamentals, Technology and Applications. /Artificial Intelligence in Complex Systems. /Data Science and Statistics.	2	1	0	3	90
FIC	School		3	0	0	3	90
RDIP	Internship / Research / Thesis	Project 1	0	0	3	3	90
<b>Semester Total</b>						<b>19</b>	<b>570</b>
Semester-4							
Category	Sub-Category	Course Title	L	T/D	P/Pr	Credits	Learning Hours
RDIP	Internship / Research / Thesis	Project 2	0	0	14	14	420
<b>Semester Total</b>						<b>14</b>	<b>420</b>