

SCHEME OF STUDIES PHYSICS

Batch 2021 FIRST YEAR SEMESTER SYSTEM				
Course Code	Course Title	Crd Hrs		
		Th	Pr	T
**Physics				
FALL 2021	CS-101 Introduction to Computer	2	1	3
	MT-173 Calculus	3	0	3
	PH-101 Mechanics & Properties of Matter	3	0	3
	PH-102 Heat & Thermodynamics	2	0	2
	CY-115 General Chemistry-I	2	1	3
SPRING 2022	PH-103 Physics Lab-I	0	1	1
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)	2	0	2
	MT-227 Differential Equations	3	0	3
	EL-255 Programming Language	2	1	3
	PH-104 Waves & Oscillations	2	0	2
	PH-105 Electricity & Magnetism	3	0	3
	PH-106 Physics Lab-II	0	1	1
	CY-116 General Chemistry-II	2	1	3
	HS-104 Functional English	3	0	3
HS-220 Chinese Language-I	NC			
*HS-231 Turkish Language-I	NC			

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Physics				
FALL 2022	CS-101 Introduction to Computer	2	1	3
	MT-173 Calculus	3	0	3
	PH-101 Mechanics & Properties of Matter	3	0	3
	PH-102 Heat & Thermodynamics	2	0	2
	CY-115 General Chemistry-I	2	1	3
SPRING 2023	PH-103 Physics Lab-I	0	1	1
	HS-105 Pakistan Studies OR	2	0	2
	HS-127 Pakistan Studies (for Foreigners)	2	0	2
	MT-100 Introduction to Mathematics	NC		
	MT-227 Differential Equations	3	0	3
	EL-255 Programming Language	2	1	3
	PH-104 Waves & Oscillations	2	0	2
	PH-105 Electricity & Magnetism	3	0	3
	PH-106 Physics Lab-II	0	1	1
	CY-116 General Chemistry-II	2	1	3
HS-104 Functional English	3	0	3	
HS-220 Chinese Language-I	NC			
HS-231 Turkish Language-I	NC			
HS-224 German Language-I	NC			
HS-226 French Language-I	NC			

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Physics				
FALL 2023	PH-101 Mechanics & Properties of Matter	3	0	3
	PH-102 Heat & Thermodynamics	2	0	2
	PH-103 Physics Lab-I	0	1	1
	***ES-105 Pakistan Studies OR	2	0	2
	***ES-127 Pakistan Studies (for Foreigners)	2	0	2
SPRING 2024	***CT-174 Fundamentals of Information Technology	2	1	3
	MT-173 Calculus	3	0	3
	**EA-104 Functional English	3	0	3
	**MT-100 Introduction to Mathematics (for Pre-Medical Students)	NC		
	PH-104 Waves & Oscillations	2	0	2
	PH-105 Electricity & Magnetism	3	0	3
	PH-106 Physics Lab-II	0	1	1
	**CY-122 General Chemistry	2	1	3
	MT-227 Differential Equations	3	0	3
	**CT-175 Programming Fundamentals	3	1	4
***ES-205 Islamic Studies OR	2	0	2	
***ES-209 Ethical Behaviour (for Non-Muslims)	2	0	2	

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Physics				
FALL 2024	PH-101 Mechanics & Properties of Matter	3	0	3
	PH-102 Heat & Thermodynamics	2	0	2
	PH-103 Physics Lab-I	0	1	1
	ES-105 Pakistan Studies OR	2	0	2
	ES-127 Pakistan Studies (for Foreigners)	2	0	2
SPRING 2025	CT-174 Fundamentals of Information Technology	2	1	3
	MT-173 Calculus	3	0	3
	EA-104 Functional English	3	0	3
	MT-100 Introduction to Mathematics (for Pre-Medical Students)	NC		
	PH-104 Waves & Oscillations	2	0	2
	PH-105 Electricity & Magnetism	3	0	3
	PH-106 Physics Lab-II	0	1	1
	CY-122 General Chemistry	2	1	3
	MT-227 Differential Equations	3	0	3
	CT-175 Programming Fundamentals	3	1	4
ES-206 Islamic Studies OR	2	0	2	
ES-209 Ethical Behaviour (for Non-Muslims)	2	0	2	

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Physics				
FALL 2025	EA-128 Functional English	3	0	3
	ES-206 Islamic Studies OR	2	0	2
	ES-209 Ethical Behaviour (for Non-Muslims)	2	0	2
	ES-108 Ideology and Constitution of Pakistan	2	0	2
	MT-101 Quantitative Reasoning-I	3	0	3
SPRING 2026	PH-131 Introductory Mechanics	3	1	4
	PH-132 Electricity and Magnetism	2	1	3
	MT-100 Introduction to Mathematics (For Pre-Medical students)	NC		
	ES-105 Pakistan Studies OR	2	0	2
	ES-127 Pakistan Studies (for Foreigners)	2	0	2
	MT-102 Quantitative Reasoning-II	3	0	3
	PH-116 Calculus and Analytical Geometry	3	0	3
	PH-133 Waves and Optics	3	1	4
	AF-101 IT Fundamentals and Applications	2	1	3
	Changed with vide Resolution No. AC-168.7(i)			

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Course Code	Course Title	Crd Hrs		
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Physics				
FALL 2022	HS-201 Oral Communication	2	1	3
	PH-201 Optics	2	0	2
	PH-202 Modern Physics	3	0	3
	PH-203 Physics Lab-III	0	1	1
	MT-272 Linear Algebra & Geometry	3	0	3
SPRING 2023	EL-232 Electronics	3	1	4
	HS-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behaviour (for Non-Muslims)	2	0	2
	HS-221 Chinese Language-II	NC		
	HS-232 Turkish Language-II	NC		
	PH-205 Classical Mechanics	3	0	3
	PH-204 Introduction to Material Science	3	0	3
	MT-331 Probability & Statistics	3	0	3
	MT-228 Complex Variables & Fourier Transforms	3	0	3
	EL-238 Digital Electronics	3	1	4
PH-206 Physics Lab-IV	0	1	1	
HS-200 Community Service	NC			

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Physics				
FALL 2023	PH-202 Modern Physics	3	0	3
	**PH-207 Optics and Laser	3	0	3
	MT-272 Linear Algebra & Geometry	3	0	3
	EL-232 Electronics	3	1	4
	**CT-262 Introduction to Artificial Intelligence	2	1	3
SPRING 2024	***ES-205 Islamic Studies OR	2	0	2
	***ES-209 Ethical Behaviour (for Non-Muslims)	2	0	2
	**EA-221 Chinese Language-II	NC		
	**EA-222 Turkish Language-II	NC		
	**EA-226 German Language-II	NC		
	**EA-227 French Language-II	NC		
	PH-205 Classical Mechanics	3	0	3
	PH-204 Introduction to Material Science	3	0	3
	***PH-203 Physics Lab-III	0	1	1
	MT-331 Probability & Statistics	3	0	3
**EA-214 Academic Writing	3	0	3	
EL-238 Digital Electronics	3	1	4	
EA-200 Community Service	NC			

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Physics				
FALL 2024	PH-202 Modern Physics	3	0	3
	**PH-207 Optics and Laser	3	0	3
	MT-272 Linear Algebra & Geometry	3	0	3
	EL-232 Electronics	3	1	4
	**CT-262 Introduction to Artificial Intelligence	2	1	3
SPRING 2025	PH-205 Classical Mechanics	3	0	3
	PH-204 Introduction to Material Science	3	0	3
	**PH-203 Physics Lab-III	0	1	1
	MT-331 Probability & Statistics	3	0	3
	**EA-214 Academic Writing	3	0	3
	EL-238 Digital Electronics	3	1	4
	EA-200 Community Service	NC		

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Physics				
FALL 2025	PH-202 Modern Physics	3	0	3
	PH-207 Optics and Laser	3	0	3
	MT-272 Linear Algebra & Geometry	3	0	3
	EL-232 Electronics	3	1	4
	CT-262 Introduction to Artificial Intelligence	2	1	3
SPRING 2026	PH-205 Classical Mechanics	3	0	3
	PH-204 Introduction to Material Science	3	0	3
	PH-203 Physics Lab-III	0	1	1
	MT-331 Probability & Statistics	3	0	3
	EA-214 Academic Writing	3	0	3
	EL-238 Digital Electronics	3	1	4
	EA-200 Community Service	NC		

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Course Code	Course Title	Crd Hrs		
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Physics				
FALL 2026	EA-244 Academic Reading and Writing	3	0	3
	EL-232 Electronics	3	1	4
	CT-175 Programming Fundamentals	3	1	4
	MT-221 Linear Algebra & Ordinary Differential Equations	3	0	3
	PH-208 Heat and Thermodynamics	2	1	3
SPRING 2027	EL-238 Digital Electronics	3	1	4
	MG-485 Entrepreneurship	2	0	2
	PH-205 Classical Mechanics	3	0	3
	PH-209 Modern Physics	3	1	4
	AF-201 Civics & Community Engagement	2	0	2
	PH-303 Mathematical Physics-I	3	0	3
	AF-200 Community Service	NC		

Batch 2021 THIRD YEAR SEMESTER SYSTEM				
Course Code	Course Title	Crd Hrs		
		Th	Pr	T
Physics				
FALL 2023	PH-301 Quantum Mechanics-I	3	0	3
	PH-303 Mathematical Physics-I	3	0	3
	PH-304 Electromagnetic Theory-I	3	0	3
	**PH-310 Solid State Physics-I	3	0	3
	**EA-301 Business & Organizational Communication	3	0	3
SPRING 2024	PH-307 Mathematical Physics-II	3	0	3
	PH-309 Electromagnetic Theory-II	3	0	3
	**PH-311 Physics Lab-V	0	1	1
	**PH-403 Solid State Physics-II	3	0	3
	**PH-415 Statistical Mechanics	2	0	2
	**MG-110 Fundamentals of Management	3	0	3

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Physics				
FALL 2024	PH-301 Quantum Mechanics-I	3	0	3
	PH-303 Mathematical Physics-I	3	0	3
	PH-304 Electromagnetic Theory-I	3	0	3
	**PH-310 Solid State Physics-I	3	0	3
	**PH-206 Physics Lab-IV	0	1	1
SPRING 2025	EA-301 Business & Organizational Communication	3	0	3
	PH-307 Mathematical Physics-II	3	0	3
	PH-309 Electromagnetic Theory-II	3	0	3
	**PH-311 Physics Lab-V	0	1	1
	**PH-403 Solid State Physics-II	3	0	3
	**PH-415 Statistical Mechanics	2	0	2
	**MG-110 Fundamentals of Management	3	0	3

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Physics				
FALL 2025	PH-301 Quantum Mechanics-I	3	0	3
	PH-303 Mathematical Physics-I	3	0	3
	PH-304 Electromagnetic Theory-I	3	0	3
	**PH-310 Solid State Physics-I	3	0	3
	**PH-206 Physics Lab-IV	0	1	1
SPRING 2026	EA-301 Business & Organizational Communication	3	0	3
	PH-307 Mathematical Physics-II	3	0	3
	PH-309 Electromagnetic Theory-II	3	0	3
	**PH-311 Physics Lab-V	0	1	1
	**PH-403 Solid State Physics-II	3	0	3
	**PH-415 Statistical Mechanics	2	0	2
	**MG-110 Fundamentals of Management	3	0	3
	EA/ES Foreign Language-I	NC		

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Physics				
FALL 2026	PH-301 Quantum Mechanics-I	3	0	3
	PH-303 Mathematical Physics-I	3	0	3
	PH-304 Electromagnetic Theory-I	3	0	3
	PH-310 Solid State Physics-I	3	0	3
	PH-206 Physics Lab-IV	0	1	1
SPRING 2027	EA-301 Business & Organizational Communication	3	0	3
	PH-307 Mathematical Physics-II	3	0	3
	PH-309 Electromagnetic Theory-II	3	0	3
	PH-311 Physics Lab-V	0	1	1
	PH-403 Solid State Physics-II	3	0	3
	PH-415 Statistical Mechanics	2	0	2
	MG-110 Fundamentals of Management	3	0	3
	EA/ES Foreign Language-I	NC		

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Physics				
FALL 2027	CT-262 Introduction to Artificial Intelligence	2	1	3
	PH-301 Quantum Mechanics-I	3	0	3
	PH-306 Statistical Mechanics	3	0	3
	PH-307 Mathematical Physics-II	3	0	3
	PH-314 Principles of Scientific Inquiry	3	0	3
SPRING 2028	PH-315 Nuclear Physics	2	1	3
	MG-110 Fundamentals of Management	3	0	