

Degree of Equipping Navoi State University with Educational and Scientific Laboratories

№	Name of the Educational Institution	Number of Educational and Scientific Laboratories	Need for Educational and Scientific Laboratories (the specific field must be indicated)
Navoiy Region, Navoiy City			
1.	Navoi State University, Department of Physics and Astronomy	<p style="text-align: center;">General Physics</p> <p>a) Mechanics – 1 b) Molecular Physics – 1 c) Electromagnetism – 1 d) Optics – 1 e) Atomic and Nuclear Physics (mainly virtual)</p>	<p>According to the Resolution of the President of the Republic of Uzbekistan No. PQ–378 of October 31, 2024, “<i>On measures for the establishment of Navoi State University</i>”, within the framework of the 2026–2030 program to create the material and technical base of educational and scientific laboratories at Navoi State University, the following laboratories are planned:</p> <p>1. Laboratory complex on Mechanics (educational) – 2026 2. Laboratory complex on Optics (educational) – 2026 3. Laboratory complex on Electromagnetism (educational) – 2029 4. Laboratory complex on Molecular Physics (educational) – 2029 5. Laboratory complex on Atomic and Nuclear Physics (educational) – 2030</p>
2.		General Astronomy and Astrophysics – 1	<p>According to the Resolution of the President of the Republic of Uzbekistan No. PQ–378 of October 31, 2024, “<i>On measures for the establishment of Navoi State University</i>”, within the framework of the 2026–2030 program to create the material and technical base of educational and scientific laboratories at Navoi State University, the following laboratory is planned:</p> <p>Laboratory complex on Astronomy (educational) – 2030</p>
3.		Scientific Laboratory (to be newly established)	<p>According to the Resolution of the President of the Republic of Uzbekistan No. PQ–378 of October 31, 2024, “<i>On measures for the establishment of Navoi State University</i>”, within the framework of the 2026–2030 program to create the material and technical base of educational and scientific laboratories at Navoi State University, the following laboratory is planned:</p> <p>Physical Radioecology (scientific) – 2028</p>

Material and technical base of laboratories

T/p	Name of the laboratories in Physics department and their equipments	Initial amount
1	Laboratory complex for mechanics	50 000 000 sum
	Laboratory setup “Universal Pendulum”	
	Laboratory setup “Determination of Free-Fall Acceleration Using the Reversible Physical Pendulum Method”	
	Educational laboratory setup “Study of Sound Waves”	
	Laboratory setup “Modeling a Telescope According to Kepler and Galileo Schemes”	
	Setup “Investigation of Mechanism Efficiency (η)”	
	Educational laboratory setup “Oberbeck Pendulum”	
	Laboratory setup “Flywheel”	
2.	Molecular Physics Laboratory Complex	60 000 000 sum
	Laboratory setup “Determination of Liquid Viscosity by Stokes’ Method”	
	Demonstration setup “Gas Viscosity”	
	Stand “Thermocouple Calibration. Seebeck Effect”	
	Laboratory setup “Determination of the Heat Capacity Ratio of Air”	
	Laboratory setup “Surface Tension in Liquids”	
	Educational laboratory equipment set “Measurement of C_p/C_v by Clément-Desormes Method”	
	Laboratory setup “Determination of the Universal Gas Constant”	

3.	Laboratory complex for electromagnetism	60 000 000 sum
	Setup “Investigation of RLC Circuits”	
	Laboratory setup “Study of the Electrostatic Field”	
	Educational setup “Study of the Solenoid Magnetic Field Using a Hall Sensor”	
	Laboratory setup “Determination of Faraday’s Constant”	
	Laboratory setup “Kirchhoff’s Laws”	
	Standard laboratory equipment set “Electricity and Magnetism”	
	Laboratory setup “Earth’s Magnetic Field”	
4.	Optics Laboratory Complex	25 000 000 sum
	Stand “Fresnel Biprism”	
	Laboratory setup “Study of Light Polarization. Malus’ Law”	
	Laboratory setup “Geometrical Optics” (Laboratory setup “Study of the Laws of Geometrical Optics”)	
	Interference, Diffraction, and Polarization Set LCP-6 – Advanced Model	
5.	Atomic and Nuclear Physics Laboratory Complex	40 000 000 sum
	Educational laboratory stand “Study of the Hydrogen Atom Spectrum Using a Diffraction Grating. Determination of the Rydberg (Planck) Constant from the Hydrogen Spectrum. Study of Basic Techniques for Working with a Diffraction Grating”	

	Laboratory complex “Interaction of γ-Particles with Matter. Scintillation γ-Particle Counter” – Rutherford Experiment Model	
	Educational laboratory setup “Measurement of the Half-Life of a Long-Lived Isotope”	
	Laboratory setup “Interaction of Charged Particles with Matter. Determination of Electron β-Decay Range Using the Absorption Method”	
	Educational laboratory stand “Study of Stefan-Boltzmann Law. Determination of the Dependence of Radiant Energy of a Heated Body on Temperature”	
6.	Astronomy Laboratory Complex	150 000 000 sum
	Educational Astronomy Observatory	
7.	Physical Radioecology	250 000 000 sum
	MKS-AT1315 — Gamma and Beta Spectrometer (ATOMTEX)	
	Alpharad Radiometer	