

1	Discipline	Physical basis of information processes
2	Year of Study, Speciality	3 ; 1-31 04 08 Computer physics
3	Term of Study	5
4	Number of Credits	2
5	Tutors	Associate Professors, PhDs Pokotilo Yu.M., Stelmakh G.F.
6	Study Objectives	Asquaintance of students with the basic physical phenomena and processes underlying the receipt, storage, processing and display of information and features of the formation and circulation of information flows in physics.
7	Prerequisites	Optics , Atomic Physics and Atomic Phenomena
8	Course Content	Fundamentals of the theory of information processes. Physical principles of information recording and storing. Optoelectronics in information processes. Optical signal recording systems. Fundamentals of physics of condensed matter. Phenomena of energy and momentum transfer in crystals. Interaction of radiation with solid medium. The physical basis of micro- and nanoelectronics. Current diagnostic methods of substance characteristics. Physics of photodetectors and radiation detectors. Theory of beam energy transfer in the atmosphere. Liquid and gas in equilibrium state. Steady flow of liquid. Movement of viscous liquid.
9	Literature Recommended	1. L. Brillouin. Science and Information Theory. M., Mir, 1960. 2. V.I. Dmitriev. Applied Information Theory, Moscow, Higher School, 1989. 3. Kireev, P.S. Physics of semiconductors .- M.: Higher Education School, 1975
10	Methods of Teaching	Lectures using comparative research and teaching methods
11	Language of Teaching	Russian
12	Requirements, Current Assessment	Colloquia , abstract works.
13	Form of Current Assessment	Test