

RUSSIAN-ARMENIAN UNIVERSITY

Institute of Engineering and Physics

Department: General Physics and Quantum Nanostructures

SYLLABUS

Specialization «Electronics and Nanoelectronics»

Training program: Master's degree

Form of study: Full-time

Duration of study: 2 years.

Educational process plan

Specialization «Electronics and Nanoelectronics»

Subject name and types of student academic work		1 course														2 course						Total hours				
		1 semester					2 semester					3 semester			4 semester											
		Exam	Satisfactory	Credits	Total classroom hours	Credits	Amount of hours				Credits	Amount of hours				Credits	Amount of hour									
					Lecture	practical/se minar	Laboratory	Self-employment	Credits	Lecture	practical/se minar	Laboratory	Self-employment	Credits	Lecture	practical/se minar	Laboratory	Self-employment	Credits	Lecture	practical/se minar	Laboratory	Self-employment			
1	2	3	4	5	6	7	8	9,1	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
I. HUMANITARIAN EDUCATIONAL BLOCK				12																						432
1	Professional English		1,2	8	128	4	32	32		80	4	32	32		80											288
2	Academic Writing		3	4	48											4	16	32		96						144
II. GENERAL PROFESSIONAL COURSE CURRICULUM				24																						864
3	Integrated Photonic Devices and Circuits	1		6	64	6	32	32		152																216
4	Numerical Methods in Physics	1		6	64	6	32	32		152																216
5	Coursework Project on Numerical Methods		1	6	32	6		32		184																216
6	Introduction to Quantum Communication		2	6	64					6	32	32		152												216
III. CURRICULUM OF SPECIALIZATION COURSES				30																						1080
7	Quantum Nanostructures	2		6	64					6	32	32		152												216
8	Optical Properties of Quantum Dots	2		6	64					6	32	32		152												216
9	Laboratories in Optics Research	3		6	64										6	32		32	152							216
10	Modeling of Nanostructures	3		6	64										6	32	32		152							216
11	Semiconductor Nanoelectronics		3	6	64										6	32	32		152							216
IV. RESEARCH STRUCTURE				54																						1944
12	Research Project 1		1	8		8				288																288
13	Research Project 2		2	8							8								288							288
14	Research Project 3		3	8											8					288						288
15	Finalization of Research Project		4	20																	20				720	720
15	Defense of master's thesis	4		10																	10				360	360
TOTAL Credits				120		30				30					30					30						4320