Faculty of Science
University of Kragujevac
Serbia

Graduate Academic Studies in Physics

Graduate Academic Studies lasts one year. At the Graduate studies, there are five modules upon completion of which concern the following titles:

A1 - Master of physicist - for general physics
A2 - Master of physicist - professor of physics
B - Master of physicist - professor of physics and informatics
C - Master of physicist - information technology and electronics
D - Master of physicist - medical physics

STRUCTURE OF STUDY PROGRAMS:

A1 - Master of physicist - for general physics
Semester I

	1	FI1001	**Selected Chapters of Quantum Mechanics**
	2	FI1002	**Physical experiment technique**
	3	FI1003	**Radiation physics**
	4	FI1004	**Astrophysics with astronomy**
5 election block		FI1I01	
		FI1010	**General theory of relativity**
		FI1011	**Selected Chapters of Modern Physics**

Semester II

	6	FI1006	**Quantum statistical physics**
	7	FI1007	**Field theory and symmetry in physics**
8 election block		FI1I02	
		FI1012	**Neutron physics**
		FI2222	**Introduction to nanomaterial physics**

	FI1013	Laser physics
9 election block	FI1I03	
	FI1014	Quantum informatics
	FI1015	Quantum optics
10	FIZ032	Professional practice
11	FIZ033	Research study work
12	FIZ034	Final work

A2 - Master of physicist - professor of physics
Semester I

	1	BIO098	Psychology
	2	FI2001	Methodology of working with talented students
	3	BI1002	Pedagogical psychology
4 election block		FI2I01	
		FI1003	Radiation physics
		FI1002	Physical experiment technique
5 election block		FI2I02	
		FI1010	General theory of relativity
		FI1011	Selected Chapters of Modern Physics
6 election block		FI2I03	
		FI1004	Astrophysics with astronomy
		FI1001	Selected Chapters of Quantum Mechanics

Semester II

	7	FI2005	Methodology for solving computer tasks
	8	BIO094	Pedagogy
	9	FI2007	School practice in physics
	10	BI1003	School pedagogy
	11	FIZ032	Professional practice
	12	FIZ033	Research study work
	13	FIZ034	Final work
	14	FI2220	Physics teaching methodology

B - Master of physicist - professor of physics and informatics
Semester I

	1	BI1002	Pedagogical psychology
2 election block		FI3I01	
		FI1003	Radiation physics

	FI1002	**Physical experiment technique**
3 election block	FI3I02	
	IN1014	**Processing large amounts of data**
	IN2007	**Computer modeling and simulations**
4 election block	FI3I03	
	FI1004	**Astrophysics with astronomy**
	FI1001	**Selected Chapters of Quantum Mechanics**
	FI3008	**Software packages**
5	FIZ134	**Database**

Semester II

6	FI2005	**Methodology for solving computer tasks**
7	FI3006	**School practice in physics and informatics**
8	BI1003	**School pedagogy**
9	FIZ032	**Professional practice**
10	FIZ033	**Research study work**
11	FIZ034	**Final work**
12	FIZ133	**Master Elective Seminar**
13 election block	FI2I11	
	FI1013	**Laser physics**
	FI1012	**Neutron physics**

C - Master of physicist - information technology and electronics
Semester I

1 election block	FI4I01	
	FI1003	**Radiation physics**
	FI1002	**Physical experiment technique**
2 election block	FI4I02	
	FI1004	**Radiation physics**
	FI1001	**Physical experiment technique**
3 election block	FI4I03	
	FI1010	**General theory of relativity**
	FI1011	**Selected Chapters of Modern Physics**

4	IN2001	**Artificial intelligence**
5	IN1003	**Machine learning 1**

Semester II

6	FIZ032	**Professional practice**
7	FIZ033	**Research study work**
8	FI4006	**Digital signal processing**
9	FI4007	**Quantum informatics**
10	FIZ034	**Final work**
11	FIZ133	**Master Elective Seminar**

D - Master of physicist - medical physics

Semester I

1 election block	FI5I01	
	FI1004	**Astrophysics with astronomy**
	FI1001	**Selected Chapters of Quantum Mechanics**
2	FI5001	**Medical instrumentation 2**
3	FI5002	**Computer simulations in medicine**
4	FI5003	**Statistics in medicine**
5 election block	FI5I02	
	IN1014	**Processing large amounts of data**
	IN2007	**Computer modeling and simulations**

Semester II

6	FI5I03	
	FI1012	**Neutron physics**
	FI1013	**Laser physics**
7	FIZ032	**Professional practice**
8	FIZ033	**Research study work**
9	FI4006	**Digital signal processing**
10	FI5006	**Medical image 2**
11	FIZ034	**Final work**