

**Faculty of Science
University of Kragujevac
Serbia**

PhD Academic Studies in Physics

PhD academic studies last for three years.

STRUCTURE OF STUDY PROGRAMS:

**First
Year**

Semester I

FIZD01	Elective course 1
FIZD02	Elective course 2
FIZD03	Research work 1

Semester II

FIZD04	Elective course 3
FIZD05	Research work 2

Second Year

Semester III

FIZD06	Elective course 4
FIZD07	Elective course 5
FIZD08	Research work 3

Semester IV

FIZD09	Elective course 6
FIZD10	Research work 4

Third Year

Semester V

FIZD11	Research work 5
FIZD11	Research work 6

Semester VI

FIZD13	PhD thesis
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List of elective courses

- FIZD14 **Decoherence theory**
- FIZD15 **Selected Chapters Of Mathematical physics**
- FIZD16 **Theory of open quantum systems**
- FIZD17 **Phase transition theory**
- FIZD18 **Quantum chemistry**
- FIZD19 **Physics of magnetic systems**
- FIZD20 **Structure of atoms and molecules**
- FIZD21 **Atom in a strong laser field**
- FIZD22 **Strong laser field physics and conservation laws**
- FIZD23 **Interaction of photons with atomic systems**
- FIZD24 **Laser physics**

- FIZD25 **Selected Chapters in Wave Physics**
- FIZD26 **Nonlinear optics**
- FIZD27 **Optoelectronics**
- FIZD28 **Nuclear physics**

- FIZD29 **Monte Carlo simulations in physics**
- FIZD30 **Higher course in radiation physics**
- FIZD31 **Dosimetry and radioecology**
- FIZD32 **High energy physics**
- FIZD33 **Detectors in high energy physics**
- FIZD34 **Methodology of scientific research work**
- FIZD35 **Selected chapters of physics teaching methodology**
- FIZD36 **Experiments in physics teaching**
- FIZD37 **Application of modern ICT in physics teaching**