PhD Program: Informatics
Professional Branch: 4.6. Informatics and Computer Sciences
Major Field of Study: Informatics
Faculty: Mathematics and Natural Sciences
Department: Informatics

Brief Annotation: Aim of the PhD Program in Informatics (Computer Science) is to prepare experts, by ensuring high-level education in both theoretical and applied scientific topics in the area of: Artificial Intelligence, Bioinformatics, Combinatorics, Computational Complexity, Computer Algebra, Computer Graphics, Pattern Recognition, Computers and Society, Data Structures and Algorithms, Databases, Digital Libraries, Discrete Mathematics, Formal Languages and Automata Theory, Human-Computer Interaction, Information Theory, Logic in Computer Science, Mathematical Software, Multimedia, Networking and Internet Architecture, Neural Networks, Operating Systems, Programming Languages, Software Engineering, Symbolic Computation, Systems and Control, Theoretical Foundations of Computer Science, Web Design.

Competences of PhD students completed this program:
PhD students, completed this program, can create mathematical models and software for phenomena and/or processes, to take part in scientific work in the area of informatics, to propose algorithms for solving various problems and to program these algorithms, to study computational complexity of algorithms and to test algorithms, to prepare databases, etc.

Curriculum:
PhD students' education is based on an individual curriculum, approved by the Faculty Council, which is developed according to the topic of PhD Dissertation. Assessment is made by exam on the basis of six-grade system.

Sample list of courses

- Multimedia Databases – Prof. Nina Siniagina, PhD
- Pattern Recognition – Prof. Nina Siniagina, PhD
- Bioinformatics – Prof. Peter Milanov, PhD
- Object-oriented Programming – Assoc. Prof. Krasimir Yordzhev, PhD
- Software, Utilized in Scientific Research – Assoc. Prof. Krasimir Yordzhev, PhD
- Methods for Processing Experimental Data – Assoc. Prof. Stefan Stefanov, PhD
- Digital Signal Processing – Assoc. Prof. Stefan Stefanov, PhD
- Scientific Computing with Matlab – Assoc. Prof. Ivan Trenchev, PhD
- An Introduction to R – Assoc. Prof. Ivan Trenchev, PhD
- English
- Russian or Another Foreign Language

In the Individual Curriculum of a PhD student, several courses are included among the courses of the above Sample list of courses and/or other courses, proposed and approved by the graduate advisor, the Department Council of Department of Informatics and Faculty Council of Faculty of Mathematics and Natural Sciences, as well as Foreign Language.

Graduation:

- Exams from Individual Curriculum
- Defence of PhD Dissertation