

PhD Program: Methodology of Physics Education
Professional Branch: 1.3. Pedagogy of Education
Area of Higher Education: 1. Pedagogical Sciences
Faculty: Natural Sciences and Mathematics
Department: Physics

Brief Annotation:

Aim of this PhD program is to provide PhD students with strong theoretical and practical training for independent research in the area of physics and specialized pedagogical technologies and practices, which are up-to-date for the methodology of physics education. Students, acquired the PhD degree, are suitable for research, teaching, management and expert activities in education, research institutes, media, non-government organizations, etc.

Competences of PhD students completed this program:

- scientific competences in the area of methodology, methods and toolkit of scientific, pedagogical and specialized physics research;
- professional preparation for successful conduct of research at regional, national and international level;
- qualification for independent teaching and expert activities in the area of education, school policy and administration.

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 based on six-grade system.

Sample list of courses:

- Philosophical Foundations of Pedagogy – Prof. Dobrinka Todorina
- Current Problems of Didactics of Physics – Assoc. Prof. Radost Vassileva, Ph.D.
- Quantitative Methods in Pedagogical Research – Assoc. Prof. Elena Karashtranova, Ph.D.
- Information Technologies in Pedagogical Research – Assoc. Prof. Daniela Tuparova, Ph.D.
- Project-based learning – Assoc. Prof. Krasimira Marulevska, Ph.D.
- Modern educational technology – Assoc. Prof. Lidiya Churukova, DSc
- History of Physics – Assoc. Prof. Radost Vassileva, Ph.D.

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 Physics and Faculty Council of Faculty of Natural Sciences and Mathematics. There are two disciplines that are required for all PhD students at the University: “Working out and management of project”; “Specialized foreign language”.

Graduation:

- Exams from Individual Curriculum;
- Defense of PhD Dissertation.