

**BULGARIAN ACADEMY OF SCIENCES  
INSTITUTE OF MATHEMATICS AND INFORMATICS**

Approved:

(Prof. DSc Peter Boyvalenkov, Director of IMI-BAS)

**QUALIFICATION PROFILE**

**Higher Education Area:**

1. Pedagogical Sciences

**Professional Field:**

1.3. Pedagogics of Education in ...

**PhD Programme:**

Methodology of Education in Mathematics, Informatics and Information  
Technologies

The PhD programme “Methodology of education in mathematics, informatics and information technologies” provides the third level of higher education, that for the acquisition of the educational and scientific degree of Doctor of Philosophy.

The Qualification Profile determines the knowledge, skills, personal and professional competences of the PhD students who have pursued and completed the PhD programme “Methodology of education in mathematics, informatics and information technologies”.

**Requirements for admission and training**

The admission and training of PhD students are in accordance with the legal requirements of:

- the Higher Education Act;
- the Act on Development of the Academic Staff in the Republic of Bulgaria;
- the Regulations for the Implementation of the Act on Development of the Academic Staff in the Republic of Bulgaria;
- the Regulations on the Conditions and Order for Acquiring Scientific Degrees and Occupying Academic Positions at the Bulgarian Academy of Sciences;

- the Regulations on the Conditions and Order for Acquiring Scientific Degrees and Occupying Academic Positions at the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences;
- the Regulations on the Activity of the Training Centre (TC) and the Academic Council (AC) at the Bulgarian Academy of Sciences.

The duration of the programme is:

- 3 years in case of full-time training;
- 4 years in case of part-time training;
- up to 3 years in case of self-study.

The PhD programme “Methodology of education in mathematics, informatics and information technologies” provides the candidate the opportunity to obtain the educational and scientific degree of Doctor of Philosophy in professional field 1.3. “Pedagogics of Education in ...” upon:

- successful completion of all stages of the candidate’s individual plan;
- successful defense of the candidate’s dissertation.

## **Aim**

The PhD program “Methodology in education in Mathematics, Informatics and Information Technologies” aims to prepare highly qualified staff with in-depth fundamental and professional competence for scientific research and practically applicable work in the field of education in Mathematics, Informatics and Information Technologies, both for individual performance and teamwork.

## **Competencies**

Holders of the educational and scientific degree of Doctor of Philosophy in the PhD program “Methodology of education in Mathematics, Informatics and Information Technologies” shall possess the following knowledge and skills:

- Performance in educational research;
- Realizing an educational experiment;
- Work with data;
- Applications of contemporary methodologies and technologies;
- Clear formulation and explanation of ideas;
- Presentation of scientific results, in written and oral form;
- Expert in evaluations in the field of the methodology of education in Mathematics, Informatics and Information Technologies;
- Individual study;
- Discovery and formulation of problems and creating concepts in order to solve them;
- Use of specialized software products.

## **Realization**

The graduates of the doctorate program “Methodology of education in Mathematics, Informatics and Information Technologies” are highly qualified specialists which can afterwards contribute as:

- Researchers in scientific institutions and laboratories;
- Teachers, Lecturers, Educators;
- Experts in educational structures, media, non-government organizations, etc.

Their competencies allow them to be in responsible and management positions in areas related to education.

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The Qualification Profile was approved by the Scientific Council of IMI-BAS on 28.10.2022 (Minutes № 10).