

**PhD Program:** Inorganic Chemistry

**Professional Branch:** 4.2. Chemistry

**Major Field of Study:** Inorganic Chemistry

**Faculty:** Mathematics and Natural Sciences

**Department:** Chemistry

**Brief Annotation:** The aim of the PhD Program in Inorganic Chemistry is to prepare experts with a high-level theoretical and practical qualification in the field of modern Inorganic Chemistry – synthesis and characterization of new materials, catalysis (incl. electrocatalysis), etc. The education is organized within 6 semesters and the educational process finishes with the elaboration and defense of PhD thesis. The specialists who have defended it successfully can find professional realization in research and educational institutions as well as in industrial enterprises.

**Competences of PhD students completed this program:** PhD students, completed this program, can solve complex scientific and practical problems in the field of Inorganic chemistry, to lead research interdisciplinary projects, to apply results from fundamental research in industry, to develop and introduce in the practice new high-effective and ecologically friendly technologies.

**Curriculum:** PhD students' education is based on an individual curriculum, which is developed according to the topic of PhD Dissertation. In the Individual Curriculum of a PhD student, several courses are included among the courses of the below 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. Assessment is made by exam on the basis of six-grade system.

#### **Sample list of courses**

- Fundamentals of Electrochemistry – Prof. Mario Mitov, PhD
- Kinetics and Catalysis – Assoc.Prof. Stefan Manev, PhD
- Modern Instrumental Methods - Assoc.Prof. Petko Mandzhukov, PhD
- Nanochemistry and Nanotechnologies – Prof. Borjan Radoev, DSc
- Modern Electrochemical Methods – Prof. Mario Mitov, PhD
- Applied Electrochemistry - Prof. Mario Mitov, PhD
- Chemometrics – Assoc.Prof. Petko Mandzhukov, PhD
- Specialized Foreign Language

#### **Graduation:**

- Exams from the Individual Curriculum
- Defence of PhD Dissertation