

## **22.03.01 Materials Science and Technology**

### **Materials Design and Engineering for the Nuclear Industry**

**Partner university:** D. Serikbayev East Kazakhstan State Technical University (Ust'-Kamenogorsk, Kazakhstan)

#### **Program objective:**

Provide profound training of EKSTU students for research and technological issues in radiation materials science and technologies in order to design and develop promising materials for the nuclear industry.

#### **Location of training**

- 1<sup>st</sup> and 3<sup>rd</sup> study years – MEPhI (Russia);
- 2<sup>nd</sup> and 4<sup>th</sup> study years – EKSTU (Kazakhstan);
- pre-diploma practical training and diploma project implementation – EKSTU and enterprises (Kazakhstan).

#### **Curriculum features**

- study of main types of modern structural and functional inorganic materials, including radiation-resistant and corrosion-resistant compositions, including transformations at the stages of production, processing and operation;
- development, research, modification and application (processing, operation and disposal) of materials for nuclear technology;
- operation of facilities for research and diagnostics of materials states and properties.

#### **Program supervisors:**

Boris Kalin, Head of MEPhI Department “Physical Issues of Materials Science”, Doctor of Physical and Mathematical Sciences, Professor, Honored Worker of Science and Technology of the Russian Federation, Honored Worker of Higher Education of the Russian Federation, Laureate of the Russian Government Prize, Member of the International Academy of Sciences of Higher Education

Tamara Segeda, Head of EKSTU Department “New Technologies and Materials in Nuclear Industry”, Director of Center for International and Educational Programs, Candidate of Physical and Mathematical Sciences