SUMMARY OF DISCIPLINE

1. **Discipline**: Mineralogy and Crystallography
2. Conventional designation (code) in education plans Б3.В.1.1.
3. **Direction 18.03.01:** "Chemical Technology"
4. **Specialization** "Chemical technology of refractory non-metal and silicate materials"
5. **Qualifications (degree)** Bachelor
6. **Provides department** Department of Silicate and Nanomaterials Technology
7. **Coordinator**: Ph.D. Associate Professor Mitina Natalia Aleksandrovna, E-mail*:* mitinana@tpu.ru
8. **Learning outcomes:**
    1. Apply theoretical knowledge in the field of mineralogy and crystallography in the study and development of technological processes of creation of high-performance materials and products from ceramics, binders, glass, glass ceramics and composites based on them.
    2. Independently evaluate the possibility of using non-metallic raw materials in the region in the production of traditional and new materials; assess the quality of the natural raw material of new deposits in order to expand the domestic base.
    3. To apply the experimental methods of laboratory studies of the mineral composition of sedimentary rocks.
9. **Contents:**

Module 1: The genesis of rocks and minerals
Module 2: Structure, properties, classification of minerals
Module 3: Characteristics, description of minerals
Module 4: Basics of crystallography

10. **Semester**: 6rd
11. **Prerequisites:** General and Inorganic Chemistry, Б.2.Б.5. Physical chemistry
12. **Credit cost of discipline**: 3 credits
13. **Type of intermediate certification:** exam

Teacher Mitina N.A.
Date _____