There are two laboratories at the department in the direction of mineral processing: a flotation laboratory; a laboratory for preparing ore for enrichment, crushing, grinding, magnetic separation and enrichment on concentration tables, jigging machines.

The laboratories are equipped with modern equipment: flotation machines, magnetic separators for dry separation of ores, laboratory ball mill, jaw crusher, sample eraser, vibrating mill, jigging machine, concentration table. The laboratories conduct laboratory classes in the following disciplines: fundamentals of mineral enrichment; ore preparation and enrichment processes; gravity enrichment methods; flotation enrichment methods; magnetic enrichment methods; course research; dehydration, dust protection and environmental protection.

Students of the OP "Mineral enrichment" conduct research on the concentration table, where ore minerals are enriched, receive concentrate and rock (2020). In the photo: Amangeldinov A.A., Tokish K.

Students of the OP "Mineral enrichment" carry out foam flotation on a flotation machine and receive copper concentrate (2020).
In the photo: Amangeldinov A.A., Shakenova A., Bektasova N.

In 2018, the scientific and educational complex "Bioengineering" was established at the department. The structure of the NOC "Bioengineering" also includes laboratories of the directions of chemical technology of organic substances: "Organic synthesis" and "Physico-chemical methods"; the directions of biotechnology: "Phytobiotechnology", "Biochemistry" and "Microbiology".

Laboratories in the field of chemical technology of organic substances are equipped with modern equipment: FSM-2201 IR Fourier spectrometer, PE2400 SERIES II elemental analyzer, laboratory centrifuge, VIS-T-01 thermostat, SS2107 spectrophotometer with verification, IRF 454 B refractometer, UPVA – 5, 2M analytical quality water production unit, pH meter pH 150 MI, A device for determining the melting point of STUART SMP 20, a rotary evaporator of the brand IKA HB eco, a reactor for microwave synthesis Monowave 400. The laboratories conduct laboratory classes in the following disciplines: chemical technology of organic substances, physical and colloidal chemistry, methods of control of organic synthesis products.

The process of studying the experiment by the volt-amperometric method on the STA device (2019). In the photo: students of the OP "Chemical technology of organic substances" Tomabaeva A., Kazhymukan E

In the field of biotechnology for working with plants and microorganisms, the laboratory has the necessary equipment: biological safety box class II (type A2) BAvlp-01-Laminar-S-1,2 (code 221.120), thermostat, climate chamber "heat lighting

The Biochemistry laboratory conducts research on the biochemical composition of plants, microbial synthesis products, physico-chemical properties of microbial synthesis products, etc. For this purpose, the laboratory has the necessary equipment: MBS 10 microscope, XSP-104 monocular microscope, Altami BIO 2 microscope, homogenizer, magnetic stirrer without heating HI 180 F-2 Hanna, IRF 454 B2M refractometer, shaker, cooling thermostat.

The Microbiology laboratory consists of 3 departments: a microbiological box, a pre-box and a training room. There is a bioreactor in the box. There is also an additional room – a washing room and an environment room, where there is equipment designed for sterilizing laboratory utensils (a dry-burning cabinet), as well as autoclaves (vertical and horizontal) used for sterilizing dishes and nutrient media at high temperature under pressure. The laboratories conduct laboratory classes in the following disciplines: cytology, histology and plant physiology, phytobiotechnology, agro-industrial biotechnology, prokaryotic biotechnology, bacteriology.

The process of adding a nutrient medium to a bioreactor for culturing microorganisms (2020).
In the photo: Bolotova S., Alikhanov A.

The process of working with plant cell cultures. They are cultured at high humidity (2021).
In the photo: Verzunova A., Bondarenko A.