



MASTER'S PROGRAM IN FOOD BIOTECHNOLOGY

- **This program is offered by Ural Federal University (UrFU) Institute of Chemical Technology Direction : 19.04.01 Biotechnology**

- **Program duration: 2 years, full-time, 120 ECTS**

- **Language of Instruction: English**

- **Program start: September, 2022**

PROGRAM GOAL

Training highly qualified future specialists in production quality control, product development and innovation in food and drink industries.

PROGRAM HIGHLIGHTS

- Close collaboration with research institutes, industry and employers
- Access to advanced equipment for food analysis, properties of microorganisms and cell cultures
- In-depth studies of biotechnological processing of raw materials, beer and wine production, yeast biotechnologies and metabolic and genetic engineering

FACILITIES

- Full-equipped Microbiological and Biotechnological Laboratory Innovation Center of Chemical and Pharmaceutical Technologies, Institute of Chemical Technology Biochemical Laboratory, Innovation Center of Chemical and Pharmaceutical Technologies, Institute of Chemical Technology
- Accredited research laboratory of complex expertise and attestation of organic materials, Institute of Chemical Technology
- Research Laboratory of Organic Synthesis, Innovation Center of Chemical and Pharmaceutical Technologies, Institute of Chemical Technology

- Research Laboratory of Medicinal Agents, Innovation Center of Chemical and Pharmaceutical Technologies, Institute of Chemical Technology



COURSES

Compulsory Courses. Economical Analysis and line Management, (3 ECTS); Philosophical Problems in Science and Technology (3 ECTS); Modern Methods in Biotechnology (3 ECTS); Information Technologies in Science and Education (2 credits); Foreign Language for Professional Purposes (Russian) (8 ECTS); Modern Aspects of Scientific Research (4 ECTS); Design of Biotechnological Industries (4 ECTS); Innovation Technologies in Food Production(3ECTS); International Standards in Biotechnology and Food Safety (3 ECTS); Physicochemical Methods in Quality Control of Biotechnological Products (4 ECTS); Gene and Protein Engineering (3 ECTS); Industrial Biocatalysis (3 ECTS); (3 ECTS); Molecular Genetic Methods in Food Biotechnology (3 ECTS); Microbiological Analysis (3 ECTS); Physiology of Nutrition (3 ECTS); Physical and

Chemical Methods of Quality Control of Biotechnological Products (3 ECTS); Metabolic Engineering in Biotechnology (3 ECTS).

Elective Courses. Biotechnological Animal Origin Raw Materials Processing/ Biotechnological Modification of Animal Materials Properties (3 ECTS); Biotechnologies of Beer and Wine Production/Innovation Technologies in Alcoholic Beverages Production/Yeast Biotechnology (3 ECTS); Technology for Processing Oily Raw Materials/Technology for Production of Vegetable Oils and Proteins (3 ECTS); Methods for Organic Compounds Structure Identification (3 ECTS); 2 Course Projects (6 ESTS).

Research Work and Practices. Master's Student Research Work (38 ECTS); Industrial Attachment (2 ECTS); Research Practice (4 ECTS); Pedagogical Practice (Pre-diploma Practice) (4 ECTS)

There are approximately 20 contact hours per week.

Final examination: Oral exam and Master's thesis defense

FORMER SRUDENTS (2014-2021):

- 3 students from Rwanda and one from Iran (graduates of the academic year 2015/2016);
- 2 students from Pakistan, 1 student from India, 1 student from Egypt, 1 student from Ghana and one from Nigeria (graduates of the academic year 2016/2017)
- 4 students from Egypt, Pakistan, Ghana and Kuwait (graduates of the 2018/2019 academic year



CURRENT STUDENTS (2017-2020):

- 9 students from Egypt, Nigeria, Ghana, Columbia and Syria (2018/2020 academic years)
- 6 students from Ghana, Iraq, Iran, India and Salvador (2019/2021 academic years);

CAREER OPPORTUNITIES

This program's graduates will be qualified for careers in production quality control, product and new biotechnologies development and innovation in food and drink industries.

INDUSTRIAL PARTNERS

- Patra, Beersfan (Yekaterinburg) and Baltika (Saint-Petersburg);
- Zelenyi Bor (Food Products and Drinks Manufacturing Company, Yekaterinburg);
- Unilk-Danone (Dairy Production Company, Yekaterinburg) and others



SUCCESS STORIES

- **Current Ph.D. Students :** (Parise Adadi (Ghana), University of Otago, New Zealand; Kingsley Duru, (Nigeria), SaiedMahmood Razavizadeh (Iran), Dominique Savio Nsengyumva (Rwanda), Anindita Mukherjee (India), UrfU; Nabayire Osman (Ghana), UrfU, Saied Abushanab (Egypt), UrfU, Monika Nabil Gayed (Egypt), Daniel Nsengumuremyemi (Rwanda), ITMO University, Saint Petersburg; Samuel Ntakirutimana (Rwanda), Tianjin University, China); Guillaume Ore (Côte d'Ivoire), Polytechnic Doctoral School of the INP-HB, Côte d'Ivoire.
- **Industry Employees:** Aysha Irtiza (Pakistan), Punjab Food Authority, Food Safety Officer, Pakistan; Arslan Mohammed Gouri (Pakistan), Vania Food Industry, Food Insurance Manager, Pakistan.

ADMISSION REQUIREMENTS AND HOW TO APPLY

Admission Requirements

4-year Bachelor's degree (or equivalent) in Biotechnology, Biochemistry, Biochemical Engineering, Biology or in related fields

How to apply

Contact the International Student Support Center. You can either send us an e-mail (admission_urfu@ustu.ru) or fill in the Admission Form at our official web-site www.urfu.ru. For all program details you can contact the program facilitator <https://hti.urfu.ru/en/for-applicants/food-biotechnology/>

Contacts: Prof. Maxim A. Mironov & Elena G. Kovaleva, m.a.mironov@urfu.ru; e.g.kovaleva@urfu.ru

Tuition Fees: 255 100 Rubs per year