

Prospective students

Prospective students at this Master in Hygienic Engineering and Design are coming from academia and industry.

Graduated students (Bachelor, Master) in:

- Mechanical engineering,
- Process engineering,
- Industrial engineering,
- Materials science,
- Technical sciences,
- Food engineering,
- Food science,
- Food technology and biotechnology,
- Biotechnology,
- Pharmacy
- Chemical engineering
- Microbiology
- Standardization and certification.

Specialists and/or employees from:

- Food enterprises,
 - Machinery units,
 - Sanitation units,
 - Pharmacy companies,
 - Quality assurance and Food safety staff,
 - Food safety regulators and auditors
- (specialized in: machinery, foods, beverage, cosmetics, pharmaceutical production, biotechnology and chemical industries.

Studies are also open for all students who are interested in food hygiene and want to be specialists in the area of hygienic engineering and design.

Career opportunities

Master students have following career opportunities:

- Leading designer of food equipment and technological processes;
- Head/member of the team for food safety development, implementation and maintenance;
- Manager/coordinator/member of sanitation teams in food processing companies;
- Process design engineer in R&D;
- Auditor (expert) for conformity assessment of production requirements for international hygiene and safety systems and standards;
- Head of the service of occupational metrological assurance and quality systems in production;
- Teacher-Researcher in the field of technological equipment in higher educational institutions and research organizations.

FURTHER INFORMATION

For further information please visit:

<http://eng.ncfu.ru/2018/10/19/master-in-hygienic-design-now-it-is-real-true.html>, and/or

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APPLY NOW or inform interested colleagues and students.



HYGIENIC ENGINEERING AND DESIGN

MASTER STUDIES



Master studies in Hygienic Engineering and Design

Academic Master studies in Hygienic Design

- now it's a reality! The North-Caucasus Federal University (NCFU), in Stavropol, Russia becomes the **first worldwide** academic education institute that offers a **Master's programme in Hygienic Engineering and Design**.

This multidisciplinary program is developed on the basis of the European and Russian legislation in the areas of hygiene and safety. The Master study courses are supported and developed in accordance with the documents of the Hygiene Engineering and Design Group - EHEDG (ehedg.org), consisting of a theoretical and practical part.

In the **theoretical** part, students will listen to cutting edge lessons concerning the latest hygienic design research, with all the students being involved in scientific research, overseen by professors in a variety of food and food-related areas.

Aim

The programme is aimed to develop and integrate modern and cutting edge hygienic aspects of real processes of food machines and tools design, as well as their maintenance and operations at industrial companies, working in the fields of: food technology and engineering, biotechnology, pharmacy, cosmetics and chemical engineering.

Courses of Master programme

No	Course name	Compulsory	ECTS credits
1	Entrepreneurship and Business plan	+	4
2	Materials of construction	+	4
3	Innovations and Intellectual property protection	+	3
4	IT technology in engineering	+	3
5	English for professional communication	+	5
6	Basics of the scientific research and experiment planning	+	3
7	Legislation in Food Safety and Hygienic Engineering	+	3
8	Hazards in hygienic processing	+	5
9	Food processes and apparatus	+	4
10	Hygienic factory design for food processing	+	5
11	Hygienic design of food processing equipment	+	5
12	Cleaning and disinfection	+	4
13	Installation, maintenance and Lubricants	+ / -	3
14	Welding in food engineering	+ / -	3
15	Food technologies for products with animal and plant origin	+ / -	4
16	Biotechnology and pharmaceutical technology	+ / -	4
17	Verification of Hygienic Design. Assessment methods for food equipment and Certification	+ / -	5
18	Food safety systems and standards	+ / -	5

Practical part of the studies

Along side the theoretical part of the studies, the Hygienic Engineering and Design Master studies will provide a comprehensive **practical** (on hand) training for students in the following facilities:

1. Laboratory of Food Facility Processes and Machinery at the NCFU Institute of Life Sciences
2. Laboratory of Microbiology at the NCFU Institute of Life Sciences
3. Laboratory of Food Technology at the NCFU Institute of Life Sciences
4. Scientific and research laboratory of Nanobiotechnology and Biophysics at the NCFU Institute of Life Sciences
5. Prototyping center and 3D Modeling at the NCFU Institute of Engineering
6. Laboratory of Metrology and Robotic Engineering at the NCFU Institute of Engineering
7. Laboratory of Machine Engineering Technology at the NCFU
8. Specialized Department of Milk and Dairy Products Technology at the JSC Dairy complex "Stavropolsky"
9. Center of Biotechnological Engineering at the NCFU Institute of Life Sciences.

Studies duration

The length of the studies consists of 2 years (4 continuous semesters).

There are possibilities for individual study plans for students who have a working engagement and are not able to stay in Stavropol for the duration of an academic year.

However, students have a requirement to visit the university once (for 4-5 weeks continuously) or two times (for 2 weeks per visit), per academic year, for lab work, research and exams.

Studies language

The official language of the program is English.