



საქართველოს ტექნიკური უნივერსიტეტი
GEORGIAN TECHNICAL UNIVERSITY

Approved by
Resolution № 733 of the
Academic Council of GTU
dated July 6, 2012

Amended by
Resolution № 01-05-04/63
of the Academic Council of
GTU dated June 7, 2022

Master's Educational Program

Program Title

პროფესიული უსაფრთხოება და ჯანმრთელობა

Occupational Safety and Health

Faculty

სამთო - გეოლოგიური

Mining and Geology Faculty

Program Head/Heads

Professor Teimuraz KUNCHULIA

Qualification to be Awarded and Program volume in credits

Master of Occupational Safety

Will be awarded upon completion of at least 120 credits of the educational program

Language of Teaching

Georgian

Prerequisite for Admission to the program

A person with at least a bachelor's degree or an academic degree equivalent to it has the right to study in the master's program, who is enrolled on the basis of the results of the master's examinations (general master's examination and examination/examinations determined by GTU). Exam questions/tests will be posted on the website of the Teaching Department of GTU at least one month before the exams. Those wishing to enroll in the program must present a relevant certificate confirming knowledge of a foreign language (English, German, French, Russian) at least B2 level or they have to take the exam at the GTU exam center. Enrollment in the program without passing the master's exams is possible according to the rules established by the Ministry of Education, Science, Culture and Sports of Georgia.

Program description

The program is compiled by the European Credit Transfer and Accumulation System (ECTS). At the Georgian Technical University, 1 ECTS credit is equal to 25 hours, which includes both contact and independent work hours. The distribution of credits (ECTS) according to subjects is presented in the curriculum. The duration of the program is 2 years. The program includes teaching and research components. Educational component (study courses): compulsory – 70 ECTS, optional – 15 ECTS. Research component - 35ECTS.

Research component

The research component is assessed as a one-time performance and defense of the master's thesis - 35 ECTS

Academic year schedule:

The academic year consists of two semesters, fall and spring. In each semester, the educational process will be conducted according to the order of the rector "On the academic schedule of the semester."

Program Objective

The goal of the master's program

- To provide the student with deep and systematic knowledge of occupational safety and health in the direction of safe management of labor and production technological processes;
- In accordance with the requirements of the labor market, develop the ability to independently research and evaluate labor safety in the enterprise, complex assessment, management and systematic analysis of safety and professional risks in technogenic emergency situations.
- To develop the ability to search for original ways to solve problems in labor safety using the latest methods and approaches.

Learning Outcomes/Competences (general and sectoral)

- Describes the natural, technogenic and social causes of production hazards and risk factors in an extreme situation.
- Performs identification and complex evaluation of harmful and dangerous production factors in production warehouses.
- Considers ways to minimize the probability of an accident and risk factors in the enterprise.
- Based on the identification, analysis and assessment of risks in the enterprise, plans collective and individual protection and other adequate preventive measures, taking into account the specifics of the enterprise.
- Analyzes statistical data on cases of industrial injuries and occupational diseases and determines ways to expand preventive measures in order to minimize the harmful effects of working conditions on personnel.

- Manages a complex production environment with new strategic approaches and organizes training of safe work rules and methods for workers, testing of workers in the field of professional safety.
- Generalizes the problems of sanitary-hygienic safety of the production environment, the peculiarities of work in extreme conditions, and logically formulates the measures to be taken to ensure the safety of the workers.
- Monitors and evaluates safety and health indicators and argues the need to modify preventive measures.
- Taking into account the specifics of the accident object, chooses measures for localization and liquidation of the accident, used special equipment and other individual protection means;
- Shares established and state-approved norms and rules for occupational safety and occupational risk assessment.

Methods of achieving learning outcomes (teaching-learning)

- Lecture Seminar (group work) Practical Laboratory Practice
 Course work/Project Consultation Independent work

In the learning process, depending on the specifics of the specific training course program, the following activities of the teaching-learning methods are used, which are reflected in the relevant training course programs (syllabi):

discussion/debate, role-playing and situational games, group (collaborative) work, case study, demonstration, analysis, explanation, project development and presentation, verbal or oral, problem-based learning, action-oriented learning, written work, induction, deduction.

Student's Knowledge Assessment

The student's knowledge is assessed on a 100-point scale.

Positive grades are:

- (A) - Excellent - 91-100 points;
- (B) - Very Good – 81-90 points;
- (C) - Good – 71-80 points;
- (D) - Satisfactory – 61-70 points;
- (E) - Sufficient – 51-60 points.

Negative grades are:

- (FX) - Failed to pass – 41-50 points, which means that the student needs more work to pass and is allowed to take an additional exam once with independent work;
- (F) - Failed - 40 points or less, which means that the work done by the student is insufficient and he/she will have to study the subject again

In case of receiving FX, an additional exam is prescribed, not less than 5 days after the announcement of the results. The mark obtained in the additional exam is not added to the mark obtained in the final mark. Detailed information is provided on the website of GTU: Instructions for managing the educational process at the Georgian Technical University.

Fields of employment

A master's degree can be employed in a state or private enterprise and institution; in government structures, consulting firms and agencies, international organizations, energy companies, in agricultural products processing enterprises; in natural gas supply systems; in operational and service centers of thermal energy systems; in gas station compressor stations; natural gas, oil and oil products in main pipeline systems and their pumping stations; in machine building, light industry, transport, mining, geological, chemical and food technology, metallurgy, communication, telecommunication, informatics and management systems, construction, hydrotechnical enterprises and facilities, emergency management departments, in project organizations, in scientific research institutions included in universities.

Opportunities for continuing education

PhD educational programs

Human and material resources needed to implement the program

The program is provided with adequate human and material resources. Additional information is provided in the attached syllabus.

Number of attached syllabi: 25