



2.10.3. Occupational safety

Уровень Training level: aspirantura
Form of training: aboutchnaya
Duration of training: 3 years old
Group of scientific specialties: Technosphere safety (technical sciences)
Number of seats: 1 (contract)

Program Description

The purpose of mastering the postgraduate program is to write, design and submit for the defense of a dissertation for the degree of Candidate of Sciences, containing the solution of a scientific problem that is important for the development of the relevant branch of science.

Scientific specialty 2.10.3 Occupational safety is a field of science and technology that studies, develops scientific foundations for analyzing and predicting parameters of the industrial environment, hazardous situations and hazardous areas, and improves the theory and practice of occupational risk reduction.

The program is aimed at comprehensive and high-quality training of scientific and scientific-pedagogical personnel in the following areas:

1. Development of scientifically based methods for analyzing and predicting parameters of the industrial environment, hazardous situations and hazardous areas.
2. Study of physical, chemical, biological and socio-economic processes that determine working conditions, establishing relationships with harmful and dangerous factors of the industrial environment.
3. Development of methods and systems for monitoring, evaluating and rationing hazardous and harmful factors of production, automated hazard alarm systems.
4. Development of professional risk management methodology, justification of criteria and socially acceptable levels of risk, development of assessment methods and ways to reduce professional risk at facilities.
5. Development of scientifically based methods for recording, analyzing, predicting, and evaluating the socio-economic consequences of accidents, occupational injuries, and occupational morbidity.
6. Development of scientific bases, establishment of the field of rational application and optimization of methods, systems and means of collective and individual protection of employees from exposure to harmful and dangerous factors.
7. Assessment of the effectiveness of occupational health and safety management systems at enterprises and development of scientifically based approaches to improve it, creation of information systems for automating occupational safety tasks.
8. Research of the human factor in the human – technical system – production environment system in order to improve labor safety.
9. Development of methods for determining the professional aptitude and competence of employees engaged in hazardous, harmful jobs and jobs that require increased attention, quick response and high responsibility.
10. Improvement of methods of ensuring safety during maintenance, pre-repair preparation, repair and operation of technical means, equipment and structures of objects. Improving the reliability of security object equipment.
11. Development of scientific bases for creating regulatory documentation on occupational safety and occupational risk management.
12. Development and improvement of the methodology for state supervision, industrial and public control over compliance with labor protection requirements at facilities.
13. Scientific substantiation of the methodology, development of methods and means of protecting people's lives and health in accidents, fires and explosions.