

# Fire Protection and Safety

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<b>Faculty</b>	Faculty of Safety Engineering
<b>Type of study</b>	Doctoral
<b>Language of instruction</b>	English
<b>Code of the programme</b>	P1032D020005
<b>Title of the programme</b>	Fire Protection and Safety
<b>Regular period of the study</b>	4 years
<b>Coordinating department</b>	Department of Civil Protection
<b>Coordinator</b>	prof. Ing. David Řehák, Ph.D.
<b>Key words</b>	Industrial safety, OSH, Safety of persons and property, Population protection, Fire safety

## About study programme

The doctoral study in the Safety and Fire Protection study program provides the highest level of higher education for safety and fire protection. It is intended for specially gifted individuals oriented to development and research, including applied research. The study is based on the multidisciplinary nature of the field of science and its complexity and therefore has an expanding and deepening character, which will not only master the scientific principles, methods and tools of a particular doctoral student, but also understand the context in the broad context of science and relations to other natural, technical and social sciences.

## Graduate's employment

The graduate will find employment mainly in research and development, in education, in organizations providing expert services in the field of fire protection and industrial safety, crisis management, population protection, safety analysis, in testing and development laboratories, in management positions in government. concepts and in the management of companies and organizations.

## Study aims

The aim of the study is to prepare for independent creative scientific work in the field. The study part is focused on expanding and deepening the theoretical basis of the field and a detailed acquaintance with the most important findings in a narrower focus. This part is followed by a dissertation, which the student demonstrates the ability to achieve original scientific results and further develop them.

## Graduate's knowledge

The study program prepares experts who are able to identify and assess the risk of fires, explosions, industrial accidents, natural disasters and other threats to the safety of people and property at a high level, qualitatively and quantitatively analyze the level of risks, find, apply and evaluate means of prevention and protection, design and implement means of eliminating the consequences of emergencies, master the theory of crisis management, emergency planning and risk management. In addition to the area of acute hazards, graduates will also be able to deal with the risks of chronic effects, for example in the work environment, and the risks caused by intentional illegal acts. Graduates are able to understand the system of scientific and research problems at the border of several disciplines.

## Graduate's skills

The acquired skills will enable graduates to participate in solving the most serious theoretical and practical problems in the field of fire protection, industrial safety, safety and health at work, protection of the population and safety of persons and property. The

techniques used include both experimental work of the laboratory type and the study of real systems and the means of theoretical studies.

### **Graduate's general competence**

Graduates are able to take a creative and proactive approach to solving assigned tasks, to manage more complex professional projects. From the whole breadth of the multidisciplinary field, the student will focus on the narrower part corresponding to the focus of the dissertation. In this narrowed part he will gain deep and systematic knowledge of the subject corresponding to the current state of knowledge as well as deep and systematic knowledge and understanding of theories, concepts and methods that are at the forefront of international knowledge and understanding of the science system and research problems at related fields. The specific focus is given by the individual study plan based on the focus of the dissertation.

### **Study curriculum**

- form Full-time (en)
- form Part-time (en)