



# -Presentation of program sketches and ideas-

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New master study program Safety at work - fire protection at HTPSZ

- Professionally educated and trained specialized staff in the field of fire protection are important factors in the process of integration and operationalization of science and practice, using all their professional knowledge, skills and competencies

## CREATION OF MASTER DEGREE VOCATIONAL PROGRAM: PROTECTION AT WORK - FIRE PROTECTION

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- Study program title: **Fire protection**
- Type of studies: **Master vocational studies** – duration two years (four semesters 120 ECST).
- Vocation: **Master professional engineer for protection at work – fire protection**
- Study program will be implemented through:
  - compulsory subjects - covering basic knowledge that students need to master;
  - elective courses - which profiles the student closer to their education;
  - professional practice - which the student performs in the fourth semester;
  - Master's thesis - that the student realizes in the fourth semester.



## CURRICULUM FOR MASTER PROFESSIONAL STUDIES, PROTECTION AT WORK - FIRE PROTECTION

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- Study program includes 9 compulsory, 4 elective courses, which are selected from 8 offered, professional practice and master thesis.
- Each curriculum is evaluated with a certain number of ECST credits.
- In the structure of the study program the distribution of different types of curriculums is as follows:
  - academic general education
  - theoretical-methodological
  - scientific expertise
  - professional application



## A list of compulsory and elective curriculums for Master of Professional Studies

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- First year:
  - 1. The methodology of scientific research - compulsory
  - 2. The dynamics of fire - compulsory
  - 3. Protection of buildings against fire - compulsory
  - 4. Risks in Manipulating Hazardous Substances - compulsory
  - 5. Security of strategic energy facilities - compulsory
  - 6. Maintenance of technical systems - elective
  - 7. The economics of fire protection - elective
  - 8. System Engineering - elective
  - 9. Project Management - elective



## A list of compulsory and elective curriculums for Master of Professional Studies

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- Second year:
  - 1. Fire protection due to the effects of electricity - compulsory
  - 2. Information technology in the protection - compulsory
  - 3. Equipment for the intervention and rescue - compulsory
  - 4. Safety and Health at Work - compulsory
  - 5. Ventilation of fire-threatened areas - elective
  - 6. Security and emergency education - elective
  - 7. Design and maintenance of fire protection systems - elective
  - 8. Management and Human Resource Development - elective
  - 9. Professional Practice
  - 10. Master's thesis



## INNOVATION OF EXISTING SPECIALIST STUDY PROGRAM (PROTECTION AT WORK-FIRE PROTECTION) - ALTERNATIVE

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- Due to the uncertainty of starting the accreditation process of master professional studies in the near future, the existing study program could be innovated through the introduction of new courses allowing students the theoretical and practical training in the laboratories of the Erasmus + project.
- Precisely the equipment in the lab, especially components for the simulation of the fire alarm system and components for maintenance (charge) fire extinguishers, contribute to achieving these goals.



## INNOVATION OF EXISTING SPECIALIST STUDY PROGRAM (PROTECTION AT WORK-FIRE PROTECTION) - ALTERNATIVE

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### Study program: **Fire Protection**

- Type of study: **Specialist professional studies** lasting one year (two semesters total 60 ECTS).
- Occupation: Professional engineer for protection at work - fire protection - Specialist

### Study program will be implemented through:

- compulsory subjects - covering basic knowledge that students need to master;
- elective courses - which profiles the student closer to their education;
- professional practice - that the student performs in the second semester;
- specialist work - the student realized in the second semester.





## The curriculum in specialist professional studies PROTECTION AT WORK-FIRE PROTECTION (new subjects VS old subjects)

No.	Existing subjects	New subjects
1.	<a href="#">Mathematics</a> (selected chapters)	Fire protection due to the effects of electricity
2.	The legislation of the European Union in fire protection	The system of environmental protection management and sustainable development
3.	Reengineering of fire protection	
4.	Internet wireless sensor networks	Modeling and simulation of fire
5.	Systems for smoke and heat drainage	English language – higher level
6.	Inspection, testing and servicing of fire protection systems	
7.	Health and psychological measures of fire protection	Maintenance of technical systems
8.	Assessment of damage and insurance premiums	The principles of insurance
9.	Risk management and risk assessment methods	Design and maintenance of fire alarm systems
10.	Professional practice	
11.	Specialist work	



## CONCLUSION

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- According to the analysis of the Union of Employers, for example, in the next few years, 10 to 15 thousand people in Serbia will be able to work in companies for the recycling and other waste management companies, and a safe workplace can count and those who are trained to care for the elderly, in nursing homes ...
- Occupations in the coming decades will be among the most wanted are professional ecologist, an analyst with Environmental Protection, Physical Chemistry, Mechatronics engineer, Engineer of security and safety at work ...

